

CC
CC including a disorder of motoneurons and/or neurodegenerative disorder, e.g. amyotrophic lateral sclerosis, spinal muscular atrophy, progressive spinal muscular atrophy, infantile or juvenile muscular atrophy, progressive polymyopathy or post-polio syndrome, a disorder caused by exposure to a toxin, motoneuron trauma, a motoneuron lesion or nerve damage, an injury that affects motoneurons, motoneuron loss associated with aging, autonomic or sex-linked muscular dystrophy, diabetic neuropathy, peripheral neuropathies, Alzheimer's disease and Parkinson's disease. The present sequence is human IgF-I isoform MGF. MGF is a muscle isoform also referred as IgF-I-EC. The MGF protein comprises amino acid sequences encoded by nucleic acid sequence of IgF-I exons 4, 5 and 6 in the reading frame of MGF.

Qy	Db	Qy	Db
1 GPTETLGAEVDAIQLQVCGGRGPYQPKPQGYGSSRRAPOTGIVDECFRSQIRREMY	1 GPTETLGAEVDAIQLQVCGGRGPYQPKPQGYGSSRRAPOTGIVDECFRSQIRREMY	60	60
2	2	2	2
3 1 CAPLKAKSAMSVRACRHTMPKTOQXQPSNTNNTKSORKSSTEEHK	3 1 CAPLKAKSAMSVRACRHTMPKTOQXQPSNTNNTKSORKSSTEEHK	110	110
4	4	4	4
5 61 CAPLKAKSAMSVRACRHTMPKTOQXQPSNTNNTKSORKSSTEEHK	5 61 CAPLKAKSAMSVRACRHTMPKTOQXQPSNTNNTKSORKSSTEEHK	110	110
6	6	6	6

RESULT	3	
ABR63167		
ABR63167 standard; protein: 110 AA.		
ID		
Db		
Qy		
61	CAPIPKAKSARSAVRQHIDMPKCKYQPPSTKNTKSQRKSTFECHK	110
61	CAPIPKAKSARSAVRQHIDMPKCKYQPPSTKNTKSQRKSTFECHK	110

AAU10559	AAU10559	AAU10559 standard; protein; 110 AA.
ID	ID	
XX	XX	
AC	AC	
AAU10559;		
DT	25-FEB-2002	(first entry)
XX	DE	Human mechano-growth factor (MGF) Polypeptide.
XX	DE	Human; mechano-growth factor; insulin-like growth factor I; IGF-I; MGF;
KW	KW	neuroprotective; nerve damage; peripheral nervous system; nerve severing;
KW	KW	muscle; neurological disorder; motoneuron loss; motorneuron disorder;
KW	KW	nerve avulsion.
XX	OS	
XX	OS	Homo sapiens.
PN	PN	WO200105781-A2.
XX	PD	15-NOV-2001.
XX	PP	10-MAY-2001; 2001WO-GB002054.
XX	PR	10-MAY-2000; 2000GB-00011278.
PA	(UNILO) UNIV COLLEGE LONDON.	
PA	(EGRI-) EAST GRINSTEAD MEDICAL RES TRUST.	
XX		
PI	Goldpink G, Terenghi G;	
XX		
DR	WPI; 2002-05585/07.	
DR	N-PSDB; AAS16877.	

18-DEC-2003 (first entry)
 DT
 XX
 DB Human mechano growth factor (C-terminal end).
 XX
 KW Mechano growth factor; MGF; insulin-like growth factor 1; human;
 XX splice variant; cardiant; vasotropic; gene therapy.
 XX
 OS Homo sapiens.
 XX
 PN WO2003066082-A1.
 XX
 PD 14-NG-2003.
 XX
 PF 06-FEB-2003; 2003WO-GB0000537.
 XX
 PR 07-FEB-2002; 2002GB-00002906.
 XX
 PA (UNI) UNIV COLLEGE LONDON.
 PA (UNIT) UNIV ILLINOIS FOUND.
 PA
 PI Goldspink G, Goldspink P;
 XX
 DR WPI: 2003-636936/60.
 DR
 XX
 PT Use of Mechano Growth Factor polypeptide or polynucleotide for preventing
 PT or limiting apoptosis in the myocardium, particularly for preventing or
 PT limiting myocardial damage in response to ischemia or mechanical overload
 of the heart.
 XX
 PS
 Claim 5: FIG. 7. 74mm. English

PT Use of insulin-like growth factor-I (IGF-I) isform known as mechano
PT growth factor which is encoded by IGF-I exons 4,5,6 and has ability to
PT reduce motoneurone loss in response to nerve avulsion, to treat nerve
PT damage.

XX

PS Claim 11; Fig 5; 65PP; English.

XX

CC The invention relates to the use of an insulin-like growth factor I (IGF-
CC I) isform, known as mechano-growth factor (MGF), in the manufacture of a
CC medicament for treating nerve damage in the peripheral nervous system, or
CC for treating nerve damage by localising MGF at the site of damage. The
CC nerve damage may include severing of a nerve. The treatment may be

XX
 CC The present sequence is that of the C-terminal end of novel human mechano
 CC growth factor (Mgf), encoded by exons 3-6 of the Igf-I gene. Mgf is a
 CC splice variant and non-liver type isoform of insulin-like growth factor
 CC (Igf-I) that is activated in response to cardiac tissue damage and which
 CC has a repair function in the ischaemic and/or overloaded heart. The human
 CC Mgf transcript has a 49 base insert in the B domain that alters the
 CC reading frame and hence the C-terminal end of Mgf protein in comparison
 CC with other Igf-I splice variants. The invention provides use of a Mgf
 CC polypeptide or polynucleotide in the manufacture of a medicament for the
 CC prevention or limitation of myocardial damage in response to ischaemia or
 CC mechanical overload of the heart by preventing or limiting apoptosis in

CC the myocardium. The MGF polypeptide, polynucleotide or medicament is also
 CC useful for administration in response to a heart attack
 XX Sequence 110 AA;

Query Match 100.0%; Score 598; DB 7; Length 110;
 Best Local Similarity 100.0%; Pred. No. 6e-54; Mismatches 0; Indels 0; Gaps 0;
 Matches 110; Conservative 0; Sequence 110 AA;

Qy 1 GPTICGAEVTDALQVCGGRGFVNPKPAGYSSRRAPQTGIVDECCFRSDIRLEMV 60
 Db 1 GPTICGAEVTDALQVCGGRGFVNPKPAGYSSRRAPQTGIVDECCFRSDIRLEMV 60

Qy 61 CAPLKPAAKSARVRAQHTDMPKTKYQPSNTNKTQSORRKOSTFEEHK 110
 Db 61 CAPLKPAAKSARVRAQHTDMPKTKYQPSNTNKTQSORRKOSTFEEHK 110

RESULT 4
 AAE02449
 ID AAE02449 standard; protein; 111 AA.
 XX
 AC AAE02449;
 XX
 DT 10-AUG-2001 (first entry)
 XX
 DE Rabbit IGF-I isoform mechano-growth factor (MGF) protein.
 XX
 KW Rabbit; IGF-I isoform; Insulin-like Growth Factor-I; MGF; mechano-growth factor; neurological disorder; neurodegenerative disorder; amyoaropic lateral sclerosis; spinal muscular atrophy; muscular atrophy; poliomyelitis; post-polio syndrome; toxin; motoneurone disorder; nerve damage; autosomal muscular dystrophy; diabetic neuropathy; sex-linked muscular dystrophy; peripheral neuropathy; Alzheimer's disease; Parkinson's disease.
 XX
 OS Oryctolagus cuniculus.
 XX
 PN WO200136483-A1.
 XX
 PR 15-NOV-1999; 99GB-0002696B.
 PA (UNIC) UNIV COLLEGE LONDON.
 XX
 PI Goldspink, G., Johnson, I.;
 XX
 WPI: 2001-355620/37.
 DR N-PSDB; AAD06400.
 XX
 PT Use of mechano-growth factor, an isoform of insulin-like Growth Factor-I, for the treatment of a neurological disorder.
 XX
 PS Claim 4; Page 54; 66pp; English.

XX
 CC The present invention relates to use of mechano-growth factor (MGF), an
 CC medicament for the treatment of neurological disorder. The MGF is capable
 CC of reducing motoneurone loss by 20% or greater in response to nerve
 CC avulsion, and effects motoneurone rescue, preferably adult motoneurone
 CC rescue. The MGF polynucleotide and polypeptide are useful in the
 CC manufacture of a medicament for the treatment of a neurological disorder,
 CC including a disorder of motoneurones and/or neurodegenerative disorder,
 CC e.g., amyoaropic lateral sclerosis, spinal muscular atrophy, progressive
 CC spinal muscular atrophy, infantile or juvenile muscular atrophy,
 CC poliomyelitis or post-polio syndrome, a disorder caused by exposure to a
 CC toxin, motoneurone trauma, a motoneurone lesion, nerve damage, an
 CC injury that affects motoneurones, motoneurone loss associated with aging,
 CC autosomal or sex-linked muscular dystrophy, diabetic neuropathy,

CC peripheral neuropathies, Alzheimer's disease and Parkinson's disease. The
 CC present sequence is rabbit IGF-I isoform MGF. MGF is a muscle isoform
 CC having extracellular (EC) domain, hence also referred as IGF-I-EC. The
 CC MGF protein comprises amino acid sequences encoded by nucleic acid
 CC sequence of IGF-I exons 4, 5 and 6 in the reading frame of MGF
 XX Sequence 111 AA;

Query Match 95.7%; Score 572.5; DB 4; Length 111;
 Best Local Similarity 96.4%; Pred. No. 2.6e-51; Mismatches 2; Indels 1; Gaps 1;
 Matches 107; Conservative 1; Sequence 111 AA;

Qy 1 GPTICGAEVTDALQVCGGRGFVNPKPAGYSSRRAPQTGIVDECCFRSDIRLEMV 60
 Db 1 GPTICGAEVTDALQVCGGRGFVNPKPAGYSSRRAPQTGIVDECCFRSDIRLEMV 60

Qy 61 CAPLKPAAKSARVRAQHTDMPKTKYQPSNTNKTQSORRKOSTFEEHK 110
 Db 61 CAPLKPAAKSARVRAQHTDMPKTKYQPSNTNKTQSORRKOSTFEEHK 110

RESULT 5
 AAU10561
 ID AAU10561 standard; protein; 111 AA.
 XX
 AC AAU10561;
 XX
 DT 25-FEB-2002 (first entry)
 XX
 DE Rabbit mechano-growth factor (MGF) polypeptide.
 XX
 KW Rabbit; mechano-growth factor; insulin-like growth factor I; IGF-I; MGF; neuroprotective; nerve damage; peripheral nervous system; nerve severing; muscle; neurological disorder; motoneuron loss; motoneuron disorder; nerve avulsion.
 XX
 OS Oryctolagus cuniculus.
 XX
 PN WO200185781-A2.
 XX
 PR 15-NOV-2001.
 XX
 PD 10-MAY-2002; 2001WO-GB002054.
 XX
 PR 10-MAY-2002; 2000GB-00011278.
 XX
 PA (UNIC) UNIV COLLEGE LONDON.
 PA (EGRI-) EAST GRINSTEAD MEDICAL RES TRUST.
 XX
 PI Goldspink, G., Terenghi, G.;
 XX
 WPI; 2002-055585/07.
 DR N-PSDB; AAS16879.

XX
 PT Use of insulin-like growth factor-I (IGF-I) isoform known as mechano-growth factor which is encoded by IGF-I exons 4, 5, 6 and has ability to reduce motoneurone loss in response to nerve avulsion, to treat nerve damage.
 XX
 PS Claim 11; Fig 7; 65pp; English.

XX
 CC The invention relates to the use of an insulin-like growth factor I (IGF-I) isoform, known as mechano-growth factor (MGF), in the manufacture of a medicament for treating nerve damage in the peripheral nervous system, or for treating nerve damage by localising MGF at the site of damage. The nerve damage may include severing of a nerve. The treatment may be combined with another treatment (such as a polypeptide growth factor other than MGF) that prevents or diminishes degeneration of the target organ (for example, muscle) which the damaged nerve innervates, whereby the treatment of the muscle with MGF or a polynucleotide encoding MGF prevents or diminishes degeneration. The method is useful for treating neurological disorders, preferably motorneuron disorders. Those methods can reduce motoneuron loss by 20% or greater in response to nerve

CC avulsion. This sequence represents the rabbit MGF polypeptide
 XX sequence 111 AA;

RESULT 6 95.7%; Score 572.5; DB 5; Length 111;
 ABR63169 Best Local Similarity 96.4%; Pred. No. 2.6e-51; Mismatches 1; Gaps 1
 ID ABR63169 standard; protein; 111 AA.
 XX Matches 107; Conservative 1; MisMatches 2; Indels 1; Gaps 1
 AC ABR63169;
 XX
 DT 18-DEC-2003 (first entry)
 DE Rabbit mechano growth factor (C-terminal end).
 DE
 XX Mechano growth factor; MGF; insulin-like growth factor 1; rabbit;
 KW splice variant; cardiac; vasoactive; gene therapy.
 XX
 OS Oryctolagus cuniculus.
 XX
 PN WO2003066082-A1.
 XX
 PD 14-APR-2003.
 XX
 PP 06-FEB-2003; 2003WO-GB0000537.
 XX
 PR 07-FEB-2002; 2002GB-00002906.
 XX
 PA (UNIL) UNIV COLLEGE LONDON.
 PA (UNIT) UNIV ILLINOIS FOUND.
 XX
 PI Goldspink G, Goldspink P;
 XX
 DR WPI; 2003-636936/60.
 DR N-PSB; ACP79637.
 XX
 PT Use of Mechano Growth Factor polypeptide or Poly nucleotide for preventing or limiting myocardial damage in response to ischemia or mechanical overload of the heart.
 XX
 PS Claim 5; Fig 9, 74pp; English.

XX
 CC The present sequence is that of the C-terminal end of novel rabbit
 CC mechano growth factor (MGF), encoded by exons 3-6 of the IGF-I gene. MGF
 CC is a splice variant and non-liver type isoform of insulin-like growth factor
 CC (IGF-I) that is activated in response to cardiac tissue damage and/or
 CC which has a repair function in the ischemic and/or overloaded heart. The
 CC rabbit MGF transcript has a 52 base insert in the domain that alters
 CC the reading frame and hence the C-terminal end of MGF protein in
 CC comparison with other IGF-I splice variants. The invention provides use
 CC of a MGF polypeptide or poly nucleotide in the manufacture of a medicament
 CC for the prevention or limitation of myocardial damage in response to
 CC ischemia or mechanical overload of the heart by preventing or limiting
 CC apoptosis in the myocardium. The MGF polypeptide, poly nucleotide or
 CC medicament is also useful for administration in response to a heart
 CC attack
 XX
 Sequence 111 AA;

SQ

XX ligand; antibody; mechano-growth factor; MGF; inotropic; cardiant; XX
 KW cell signaling; muscle damage; muscular dystrophy; cardiac muscle damage; XX
 KW muscle fatigue; heart attack. XX
 OS Mus sp. XX
 PN WO2003068949-A1. XX
 PD 21-AUG-2003. XX
 XX
 PF 14-FEB-2003; 2003WO-GB000657. XX
 PR 14-FEB-2002; 2002GB-00003552. XX
 PA (BRAU/) BEAUMONT N. XX
 XX
 PI Beaumont N; XX
 XX
 DR WPI; 2003-679637/64. XX
 PT New peptides corresponding to the C terminus of creatine kinase have a similar function to mechano-growth factor and are useful to treat muscle damage such as exercise injury, muscular dystrophy and heart attack XX
 PT
 XX
 PS disclosure; Fig 1; 21pp; English. XX
 CC The present invention describes an isolated peptide capable of acting as a ligand for an antibody with affinity for the C-terminus of mechano-growth factor (MGF), for use in therapy, where the peptide is not MGF. CC Also described is an isolated peptide for use in therapy comprising the sequence (I) (X1)(X2)n(X3)(X4)(X5)(X6)(X7)(X8)p, where X1 = a basic residue, X2 and X8 = any amino acid, X3 and X4 = Lys or Glu, X5 = Ser, CC Thr, Ala or Pro, X6 = Ile, Phe or Leu, X7 = Asp or Glu, m = 2 or 3, n = 0 CC and p = 2-6, (I) has inotropic and cardiant activities, and can be used in cell signaling. (I) can be used for the manufacture of a composition for the treatment of muscle damage, deterioration or injury, particularly damage to skeletal muscle, especially muscular dystrophy or damage to cardiac muscle, and to manufacture a composition for the repair of damage or loss of nerve cells. The peptide can be used in cell culture media to promote growth of muscle or nerve cell lines. The peptides are used to treat conditions associated with muscle fatigue and/or injury for example during exercise, and to treat muscle deterioration or damage for example after a heart attack. They may be useful to identify agents that potentiate or inhibit muscle or nerve cell growth, as a treatment to promote growth or repair of muscle or nerve cells in vivo and to inhibit apoptosis of precursor cells. The present sequence represents a mouse MGF amino acid sequence, which is given in comparison with mouse insulin. CC growth factor 1 (IGF1) in the exemplification of the present invention. CC
 Sequence 133 AA;

Query Match: 87.2%; Score 511.5; DB 7; Length 133;
 Best Local Similarity 83.2%; Pred. No. 5; Be=46; 9; Indels 1; Gaps 1;
 Matches 99; Conservative 2; Mismatches 1;

QY 1 GPRETIGGAELVDAQFVCGDRGFGFVNKGFTGIGSSRRAPQTGIVDECCFRSCDLRLEMY 60
 Db 23 GPRETIGGAELVDAQFVCGDRGFGFVNKGFTGIGSSRRAPQTGIVDECCFRSCDLRLEMY 82
 QY 61 CAPLKPAAKSRSVRAQRHDMPKTQKYSQ-RRKGSTPEHK 110
 Db 83 CAPLKPAAKSRSVRAQRHDMPKTQKYSQ-RRKGSTPEHK 133

XX
 SQ Sequence 111 AA;

Query Match: 82.7%; Score 494.5; DB 4; Length 111;
 Best Local Similarity 85.6%; Pred. No. 3; Be=43; 13; Indels 1; Gaps 1;
 Matches 95; Conservative 2; Mismatches 13;

QY 1 GPRETIGGAELVDAQFVCGDRGFGFVNKGFTGIGSSRRAPQTGIVDECCFRSCDLRLEMY 60
 Db 1 GPRETIGGAELVDAQFVCGDRGFGFVNKGFTGIGSSRRAPQTGIVDECCFRSCDLRLEMY 60
 QY 61 CAPLKPAAKSRSVRAQRHDMPKTQKYSQ-RRKGSTPEHK 110
 Db 61 CAPLKPAAKSRSVRAQRHDMPKTQKYSQ-RRKGSTPEHK 110

XX
 SQ Sequence 111 AA;

Query Match: 82.7%; Score 494.5; DB 4; Length 111;
 Best Local Similarity 85.6%; Pred. No. 3; Be=43; 13; Indels 1; Gaps 1;
 Matches 95; Conservative 2; Mismatches 13;

QY 1 GPRETIGGAELVDAQFVCGDRGFGFVNKGFTGIGSSRRAPQTGIVDECCFRSCDLRLEMY 60
 Db 1 GPRETIGGAELVDAQFVCGDRGFGFVNKGFTGIGSSRRAPQTGIVDECCFRSCDLRLEMY 60
 QY 61 CAPLKPAAKSRSVRAQRHDMPKTQKYSQ-RRKGSTPEHK 110
 Db 61 CAPLKPAAKSRSVRAQRHDMPKTQKYSQ-RRKGSTPEHK 110

XX
 RESULT 11
 AAE02448
 ID AAE02448 standard; protein; 111 AA.
 XX
 AC AAE02448;
 XX
 DT 10-AUG-2001 (first entry)

XX
 DE Rat IGF-I isoform mechano-growth factor (MGF) protein. XX
 KW Rat; IGF-I isoform; insulin-like Growth Factor-I; MGF; XX
 KW mechano-growth factor; neurological disorder; neurodegenerative disorder; XX
 KW amyotrophic lateral sclerosis; spinal muscular atrophy; muscular atrophy; XX
 KW poliomyelitis; post-polio syndrome; toxin; mononeurone disorder; XX
 KW nerve damage; autosomal muscular dystrophy; diabetic neuropathy; XX
 KW sex-linked muscular dystrophy; peripheral neuropathy; XX
 KW Alzheimer's disease; Parkinson's disease. XX
 OS Rattus sp. XX
 PN WO200136483-A1.. XX
 PD 25-MAY-2001. XX
 XX
 PT 15-NOV-2000; 2000WO-GB004354. XX
 PR 15-NOV-1999; 99GB-00026968. XX
 PA (UNLO) UNIV COLLEGE LONDON. XX
 PI Goldspink G, Johnson I; XX
 DR N-PSB; AAD6399. XX
 PT Use of mechano-growth factor, an isoform of insulin-like Growth Factor-I, an XX
 PT capable of reducing motoneurone loss, in the manufacture of a medicament XX
 PT for the treatment of neurological disorder. XX
 PS Claim 4; Page 52; 66pp; English. XX
 CC The present invention relates to use of mechano-growth factor (MGF), an CC
 CC insulin-like Growth Factor-I (IGF-I) isoform in the manufacture of a medicament CC
 CC for the treatment of neurological disorder. The MGF is capable CC
 CC of reducing motoneurone loss by 20% or greater in response to nerve CC
 CC avulsion, and effects motoneurone rescue, preferably adult motoneurone CC
 CC rescue. The MGF polynucleotide and polypeptide are useful in the CC
 CC manufacture of a medicament for the treatment of a neurological disorder, CC
 CC including a disorder of motoneurons and/or neurodegenerative disorder, CC
 CC e.g., amyotrophic lateral sclerosis, spinal muscular atrophy, progressive CC
 CC poliomyelitis or post-polio syndrome, a disorder caused by exposure to a CC
 CC toxin, motoneurone trauma, a motoneurone lesion or nerve damage, an CC
 CC injury that affects motoneurons, motoneurone loss associated with aging, CC
 CC autonomic or sex-linked muscular dystrophy, diabetic neuropathy, CC
 CC peripheral neuropathies, Alzheimer's disease and Parkinson's disease. The CC
 CC present sequence is rat IGF-I isoform MGF. MGF is a muscle isoform having CC
 CC extracellular (Ec) domain, hence also referred as IGF-I-Ec. The MGF CC
 CC protein comprises amino acid sequences encoded by nucleic acid sequence CC
 CC of IGF-I exons 4, 5 and 6 in the reading frame of MGF

XX
 SQ Sequence 111 AA;

Query Match: 82.7%; Score 494.5; DB 4; Length 111;
 Best Local Similarity 85.6%; Pred. No. 3; Be=43; 13; Indels 1; Gaps 1;
 Matches 95; Conservative 2; Mismatches 13;

QY 1 GPRETIGGAELVDAQFVCGDRGFGFVNKGFTGIGSSRRAPQTGIVDECCFRSCDLRLEMY 60
 Db 1 GPRETIGGAELVDAQFVCGDRGFGFVNKGFTGIGSSRRAPQTGIVDECCFRSCDLRLEMY 60
 QY 61 CAPLKPAAKSRSVRAQRHDMPKTQKYSQ-RRKGSTPEHK 110
 Db 61 CAPLKPAAKSRSVRAQRHDMPKTQKYSQ-RRKGSTPEHK 110

XX
 RESULT 12
 AAU1560
 ID AAU1560 standard; protein; 111 AA.
 XX
 AC AAU1560;
 XX
 DT 10-AUG-2001 (first entry)

AC AAVU10560;
 XX
 DT 25-FEB-2002 (first entry)
 XX
 DB Rat mechano-growth factor (Mgf) polypeptide.
 XX
 KW Rat; mechano-growth factor; insulin-like growth factor I; IGF-I; Mgf;
 KW neuroprotective; nerve damage; peripheral nervous system; nerve severing;
 KW muscle; neurological disorder; motoneuron loss; motoneuron disorder;
 KW nerve avulsion.
 XX
 OS Rattus sp.
 XX
 PN WO200185781-A2.
 XX
 PD 15-NOV-2001.
 XX
 PR 10-MAY-2001; 2001WO-GB002054.
 XX
 PA (UNIL) UNIV COLLEGE LONDON.
 PA (UNIL) UNIV ILLINOIS FOUND.
 PA (REGI-) EAST GRINSTEAD MEDICAL RES TRUST.
 XX
 PI Goldspink G, Terenghi G;
 XX
 PT Use of insulin-like growth factor-I (IGF-I) isoform known as mechano
 PT growth factor which is encoded by IGF-I exons 4,5,6 and has ability to
 PT reduce motoneurone loss in response to nerve avulsion, to treat nerve
 PT damage.
 XX
 PS Claim 11; Fig 6; 65pp; English.
 XX
 CC The invention relates to the use of an insulin-like growth factor I (IGF-
 CC I) isoform, known as mechano-growth factor (Mgf), in the manufacture of a
 CC medicament for treating nerve damage in the peripheral nervous system, or
 CC for treating nerve damage by localising Mgf at the site of damage. The
 CC nerve damage may include severing of a nerve. The treatment may be
 CC combined with another treatment (such as a polypeptide growth factor
 CC or Mgf) that prevents or diminishes degeneration of the target
 CC organ (for example, muscle) which the damaged nerve innervates, whereby
 CC the treatment of the muscle with Mgf or a polynucleotide encoding Mgf
 CC prevents or diminishes degeneration. The method is useful for treating
 CC neurological disorders, preferably motoneuron disorders. These methods
 CC can reduce motoneuron loss by 20% or greater in response to nerve
 XX avulsion. This sequence represents the rat Mgf polypeptide
 SQ Sequence 111 AA;

Query Match Best Local Similarity 82.7%; Score 494.5; DB 5; Length 111;
 Best Local Similarity 85.6%; Pred. No. 3e-43; Mismatches 95; Conservative 2; Indels 13; Gaps 1;
 Matches 95; Conservat 2; Mismatches 13; Indels 1; Gaps 1;

QY 1 GPETICGAGELVDAQFVGCGDRGFYKNGFKTGKSSSRAPQTGIVDCCFRSCDRLRLEMY 60
 Db 1 GPETICGAGELVDAQFVGCGDRGFYKNGFKTGKSSSRAPQTGIVDCCFRSCDRLRLEMY 60

QY 61 CAPLKPKAARSRAQRHTDMPKIQKOPPSTKNTSQ-RKGSTFEHK 110
 Db 61 CAPLKPKAARSRAQRHTDMPKIQKOPPSTKNTSQ-RKGSTFEHK 110

QY 61 CVRKCKPTKSARSIRARQHDMPIKQSKQPLSTHKRKLQRKGSTLEHK 111
 Db 61 CVRKCKPTKSARSIRARQHDMPIKQSKQPLSTHKRKLQRKGSTLEHK 111

RESULT 13 ADE57466
 ID ADE57466 Standard; protein; 111 AA.
 XX
 AC ADE57466;
 XX
 DT 29-JAN-2004 (first entry)
 XX
 DE Rat Protein P08024, SEQ ID NO 3327.
 XX
 AC Rat; pain; neuronal tissue; gene therapy; spinal segmental nerve injury;
 KW chronic constriction injury; CCI; spared nerve injury; SNI; Chung.
 XX
 OS Rattus norvegicus.

RESULT 13 ADE57466
 ID ADE57466 Standard; protein; 181 AA.
 XX
 AC ADE57466;
 XX
 DT 29-JAN-2004 (first entry)
 XX
 DE Rat Protein P08024, SEQ ID NO 3327.
 XX
 AC Rat; pain; neuronal tissue; gene therapy; spinal segmental nerve injury;
 KW chronic constriction injury; CCI; spared nerve injury; SNI; Chung.
 XX
 OS Rattus norvegicus.

DE Rat mechano growth factor (C-terminal end).
 XX
 KW Mechano growth factor; Mgf; insulin-like growth factor 1; rat;
 KW splice variant; cardiac; vasoactive; gene therapy.
 XX
 OS Rattus sp.
 XX
 PN WO2003060082-A1.
 XX
 PD 14-AUG-2003.
 XX
 PR 06-FEB-2003; 2003WO-GB0000537.
 XX
 PR 07-FEB-2002; 2002GB-00002906.
 XX
 PA (UNIL) UNIV COLLEGE LONDON.
 PA (UNIL) UNIV ILLINOIS FOUND.
 XX
 PI Goldspink G, Goldspink P;
 XX
 PT WPI: 2003-636936/60.
 DR N-PSDB; ACP79336.
 XX
 PT Use of Mechano Growth Factor polypeptide or Polynucleotide for preventing
 PT or limiting apoptosis in the myocardium, particularly for preventing or
 PT limiting myocardial damage in response to ischaemia or mechanical overload
 of the heart.
 XX
 PS Claim 5; Fig 8; 74pp; English.
 XX
 CC The present sequence is that of the C-terminal end of novel rat mechano
 CC growth factor (Mgf), encoded by exons 3-6 of the IGF-I gene. Mgf is a
 CC splice variant and non-liver type isoform of insulin-like growth factor
 CC (IGF-I) that is activated in response to cardiac tissue damage and which
 CC has a repair function in the ischaemic and/or overloaded heart. The rat
 CC Mgf transcript has a 52 base insert in the E domain that alters the
 CC reading frame and hence the C-terminal end of Mgf protein in comparison
 CC with other IGF-I splice variants. The invention provides use of a Mgf
 CC polypeptide or polynucleotide in the manufacture of a medicament for the
 CC prevention or limitation of myocardial damage in response to ischaemia or
 CC mechanical overload of the heart by preventing or limiting apoptosis in
 CC the myocardium. The Mgf polypeptide, polynucleotide or medicament is also
 CC useful for administration in response to a heart attack
 XX
 SQ Sequence 111 AA;

Query Match Best Local Similarity 82.7%; Score 494.5; DB 7; Length 111;
 Best Local Similarity 85.6%; Pred. No. 3e-43; Mismatches 95; Conservative 2; Indels 13; Gaps 1;
 Matches 95; Conservat 2; Mismatches 13; Indels 1; Gaps 1;

QY 1 GPETICGAGELVDAQFVGCGDRGFYKNGFKTGKSSSRAPQTGIVDCCFRSCDRLRLEMY 60
 Db 1 GPETICGAGELVDAQFVGCGDRGFYKNGFKTGKSSSRAPQTGIVDCCFRSCDRLRLEMY 60

QY 61 CAPLKPKAARSRAQRHTDMPKIQKOPPSTKNTSQ-RKGSTFEHK 110
 Db 61 CAPLKPKAARSRAQRHTDMPKIQKOPPSTKNTSQ-RKGSTFEHK 110

QY 61 CVRKCKPTKSARSIRARQHDMPIKQSKQPLSTHKRKLQRKGSTLEHK 111
 Db 61 CVRKCKPTKSARSIRARQHDMPIKQSKQPLSTHKRKLQRKGSTLEHK 111

RESULT 14 ADE57466
 ID ADE57466 Standard; protein; 181 AA.
 XX
 AC ADE57466;
 XX
 DT 29-JAN-2004 (first entry)
 XX
 DE Rat Protein P08024, SEQ ID NO 3327.
 XX
 AC Rat; pain; neuronal tissue; gene therapy; spinal segmental nerve injury;
 KW chronic constriction injury; CCI; spared nerve injury; SNI; Chung.
 XX
 OS Rattus norvegicus.

XX WO2003016475-A2.
 PN XX
 XX PD 27-FEB-2003.
 XX PF 14-AUG-2002; 2002WO-US025765.
 XX PR 14-AUG-2001; 2001US-0312147P.
 PR 01-NOV-2001; 2001US-0346382P.
 PR 26-NOV-2001; 2001US-0353347P.
 XX KW (GEPHO) GEN HOSPITAL CORP.
 PA PA (PARB) BAYER AG.
 XX PI Woolf C, D'urso D, Befort K, Costigan M;
 DR XX WPI; 2003-268312/26.
 DR GENBANK; P08024.
 XX PT New composition comprising two or more isolated polypeptides, useful for preparing a medicament for treating pain in an animal.
 XX PT
 XX PS Claim 1; Page; 1017pp; English.
 XX
 CC The invention discloses a composition comprising two or more isolated rat or human polynucleotides or a polynucleotide which represents a fragment, derivative or allelic variation of the nucleic acid sequence. Also claimed are a vector comprising the novel polynucleotide, a host cell comprising the vector, a method for identifying a nucleotide sequence which is differentially regulated in an animal subjected to pain and a kit to perform the method, an array, a method for identifying an agent that increases or decreases the expression of the polynucleotide sequence that is differentially expressed in neuronal tissue of a first animal subjected to pain, a method for identifying a compound which regulates the expression of a polynucleotide sequence which is differentially expressed in an animal subjected to pain, a method for identifying a compound that regulates the activity of one or more of the polynucleotides, a method for producing a pharmaceutical composition, a method for identifying a compound or small molecule that regulates the activity in an animal of one or more of the polypeptides given in the specification, a method for identifying a compound useful in treating pain and a pharmaceutical composition comprising the one or more polypeptides or their antibodies. The polynucleotide or the compound that modulates its activity is useful for preparing a medicament for treating pain (e.g. spinal segmental nerve injury (Chung), chronic constriction injury (CCI) and spared nerve injury (SNL) in an animal (e.g. gene therapy). The sequence presented is a rat protein (shown in Table 2 of the specification) which is differentially expressed during pain. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic form directly from WIPO at http://wipo.int/pub/published_pct_sequences.
 XX Sequence 181 AA;
 SQ Query Match 82.6%; Score 494; DB 7; Length 181;
 Best Local Similarity 84.4%; Pred. No. 5.6e-43; Mismatches 92; Conservative 4; Indels 0; Gaps 0;
 Matches 13;
 CC 1 GPRTELGCAELVALQFVGQDRGFRYFNKPTGKGSSSRRRAPQTGIVDCCFRSCDLRLEMV 60
 Db 49 GPBTLCGAGELVALQFVGQDRGFRYFNKPTGKGSSSRRRAPQTGIVDCCFRSCDLRLEMV 108
 Qy 61 CAPIPKAKSARSTRAQHIDMPKTKQYQPPSTKNTKTSQQRKGSTFEEH 109
 Db 109 CAPIPKAKSARSTRAQHIDMPKTKQYQPPSTKNTKTSQQRKGSTFEEH 157
 XX
 RESULT 15
 AAB02450 AAB02450 standard; protein; 105 AA.
 ID ID XX
 AC AC XX
 XX
 DT 10-AUG-2001 (first entry)
 XX PN Human liver-type IGF-I isoform (L.IGF-I) protein.
 DE XX
 XX KW Human; IGF-I isoform; Insulin-like Growth Factor-I; MGF; mechano-growth factor; neurological disorder; neurodegenerative disorder; amyotrophic lateral sclerosis; spinal muscular atrophy; muscular atrophy; poliomyelitis; post-polio syndrome; toxin; motoneurone disorder; nerve damage; autosomal muscular dystrophy; diabetic neuropathy; sex-linked muscular dystrophy; peripheral neuropathy; Alzheimer's disease; Parkinson's disease; liver; L.IGF-I.
 KW XX
 KW Homo sapiens.
 OS XX
 PA PN WO200136483-A1.
 XX PD 25-MAY-2001.
 XX PR 15-NOV-1999; 99GB-00026568.
 XX PA (UNIL) UNIV COLLEGE LONDON.
 XX PI Goldspink G, Johnson I;
 DR XX WPT; 2001-355620/37.
 DR N-PSDB; AAD6403.
 XX PT Use of mechano-growth factor, an isoform of Insulin-like Growth Factor-I, capable of reducing motoneurone loss, in the manufacture of a medicament for the treatment of neurological disorder.
 XX PT Disclosure; Fig 8; 6pp; English.
 XX
 CC The present invention relates to use of mechano-growth factor (MGF), an insulin-like Growth Factor-I (IGF-I) isoform in the manufacture of a medicament for the treatment of neurological disorder. The MGF is capable of reducing motoneurone loss by 20% or greater in response to nerve avulsion, and effects motoneurone rescue, preferably adult motoneurone rescue. The MGF polynucleotide and polypeptide are useful in the manufacture of a medicament for the treatment of a neurological disorder, including a disorder of motoneurone and/or neurodegenerative disorder, e.g., amyotrophic lateral sclerosis, spinal muscular atrophy, progressive spinal muscular atrophy, infantile or juvenile muscular atrophy, progressive polyradiculitis or post-polio syndrome, a disorder caused by exposure to a toxin, motoneurone trauma, a motoneurone lesion or nerve damage, an injury that affects motoneurones, motoneurone loss associated with aging, autonomic or sex-linked muscular dystrophy, diabetic neuropathy, peripheral neuropathies, Alzheimer's disease and Parkinson's disease. The present sequence is human liver-type IGF-I isoform (L.IGF-I). The L.IGF-I protein comprises amino acid sequences encoded by nucleic acid sequence of IGF-I exons 4 and 6
 CC XX
 SQ Sequence 105 AA;
 Query Match 78.3%; Score 468; DB 4; Length 105;
 Best Local Similarity 100.0%; Pred. No. 1.5e-40; Mismatches 86; Conservative 0; Indels 0; Gaps 0;
 Matches 86;
 CC 1 GPRTELGCAELVALQFVGQDRGFRYFNKPTGKGSSSRRRAPQTGIVDCCFRSCDLRLEMV 60
 Db 49 GPBTLCGAGELVALQFVGQDRGFRYFNKPTGKGSSSRRRAPQTGIVDCCFRSCDLRLEMV 60
 Qy 61 CAPIPKAKSARSTRAQHIDMPKTKQYQPPSTKNTKTSQQRKGSTFEEH 86
 Db 61 CAPIPKAKSARSTRAQHIDMPKTKQYQPPSTKNTKTSQQRKGSTFEEH 157
 XX
 Search completed: March 3, 2004, 07:53:36
 Job time : 50.7108 secs

OM protein - protein search, using sw model

Run on: March 3, 2004, 07:53:43 ; Search time 13.9157 Seconds
(without alignments) (408.091 Million cell updates/sec)

Title: US-09-852-261-2

Perfect score: 598

Sequence: 1. GPTILGAEVLDALQFVCGD.....SINKATKSRKKGSTFEERHK 110

Scoring table: BL0SPN62

Gapop 10.0 , Gapext 0.5

Searched: 389414 seqs, 51625971 residues

Total number of hits satisfying chosen parameters: 389414

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued_Patents_AA:*

1: /cgn2_6_ptodata/2/iaa/5A_COMB_pep: *
2: /cgn2_6_ptodata/2/iaa/5B_COMB_pep: *
3: /cgn2_6_ptodata/2/iaa/6A_COMB_pep: *
4: /cgn2_6_ptodata/2/iaa/6B_COMB_pep: *
5: /cgn2_6_ptodata/2/iaa/PCMS_COMB_pep: *
6: /cgn2_6_ptodata/2/iaa/backfile1_pep: *

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

RESULT 1
US-09-142-583A-4
; Sequence 4, Application US/09142583A
; Patent No. 6221842

GENERAL INFORMATION:

APPLICANT: GOLDSPIK, GREGORY

TITLE OF INVENTION: METHOD OF TREATING MUSCULAR DISORDERS

NUMBER OF SEQUENCES: 11

CORRESPONDENCE ADDRESS:
ADDRESSEE: NIXON & VANDERHVE P.C.
STREET: 1100 NORTH GLEBE ROAD
CITY: ARLINGTON
STATE: VA
COUNTRY: USA
ZIP: 22201

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: PatentIn Release #1.0, Version #1.25

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/09/142,583A

FILING DATE: 29-OCT-1998

CATEGORIZATION: <Unknown>

PRIOR APPLICATION DATA:

APPLICATION NUMBER: WO PCT/GB97/00658

FILING DATE: 11-MAR-1997

APPLICATION NUMBER: GB 9605124.8

FILING DATE: 11-MAR-1996

ATTORNEY/AGENT INFORMATION:

NAME: SADOFF, B. J.
REGISTRATION NUMBER: 36663
REFERENCE DOCKET NUMBER: 117-263

TELECOMMUNICATION INFORMATION:

TELEPHONE: 703-8164000
TELEFAX: 703-8164100

INFORMATION FOR SEQ ID NO: 4:

SEQUENCE CHARACTERISTICS:

SEQUENCE LENGTH: 121 amino acids

TYPE: amino acid

TOPOLOGY: linear

MOLECULE TYPE: protein

SEQUENCE DESCRIPTION: SEQ ID NO: 4:

US-09-142-583A-4

Query Match 95.7%; Score 572.5; DB 3; Length 121;
Best Local Similarity 96.4%; Pred. No. 2.2e-60;
Matches 107; Conservative 1; Mismatches 2; Indels 1; Gaps 1;

QY 1 GPTILGAEVLDALQFVCGD.....SINKATKSRKKGSTFEERHK 110

RESULT 2
US-07-953-230A-10
Query Match 11 GPTTICGAGELNDALQFVCGDRGFNPKTGIGSSRRAPOTGIVDECCFRSCDLRLEMV
Best Local Similarity 78.3%; Score 468; DB 1; Length 137;
Matches 86; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
; Sequence 10, Application US/07953230A.
; Patent No. 5475779
GENERAL INFORMATION:
APPLICANT: CHEN, Thomas T
APPLICANT: SHAMBLOTT, Michael J
TITLE OF INVENTION: INSULIN-LIKE GROWTH FACTORS ISOLATED
TITLE OF INVENTION: FROM RAINBOW TROUT
NUMBER OF SEQUENCES: 12
CORRESPONDENCE ADDRESS:
ADDRESSEE: Burns, Doane, Swecker & Mathis T
STREET: George Mason Bldg., Washington & Prince Sts.
CITY: Alexandria
STATE: Virginia
COUNTRY: United States
ZIP: 22313-1404
COMPUTER READABLE FORM:
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patient Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/953,230A
FILING DATE: 30-SEP-1992
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Crane-Ferry, Sharon E
REGISTRATION NUMBER: 36,113
REFERENCE/DOCKET NUMBER: 028755-010
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 836-2021
TELEFAX: (703) 836-6620
INFORMATION FOR SEQ ID NO: 10:
SEQUENCE CHARACTERISTICS:
LENGTH: 137 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
FEATURE:
NAME/KEY: Peptide
LOCATION: 7
OTHER INFORMATION: /note= "Gap of 2 after 7."
FEATURE:
NAME/KEY: Peptide
LOCATION: 31
OTHER INFORMATION: /note= "Gap of 1 after 31."
FEATURE:
NAME/KEY: Peptide
LOCATION: 116
OTHER INFORMATION: /note= "Gap of 27 after 116."
US-07-953-230A-10

RESULT 3
US-08-950-720A-9
Query Match 71 CAPLKAQAKSARSRAQRHDMPKTQKYOPPSTNWKMKGQRKKGISTBEHK 110
; Sequence 9, Application US/08950720A.
; Patent No. 6046028
GENERAL INFORMATION:
APPLICANT: Conklin, Darrell C.
APPLICANT: Loffon-day, Catherine E.
APPLICANT: Jaspers, Stephen R.
APPLICANT: ZymoGenetics, Inc.
TITLE OF INVENTION: INSULIN HOMOLOG
NUMBER OF SEQUENCES: 17
CORRESPONDENCE ADDRESS:
ADDRESSEE: ZymoGenetics, Inc.
STREET: 1201 Eastlake Avenue East
CITY: Seattle
STATE: WA
COUNTRY: USA
ZIP: 98102
COMPUTER READABLE FORM:
COMPUTER: IBM Compatible
MEDIUM TYPE: Diskette
OPERATING SYSTEM: DOS
SOFTWARE: FasSEQ for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/950,720A
FILING DATE:
CLASSIFICATION: 435
PRIORITY APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Savislak, Deborah A.
REGISTRATION NUMBER: 37,438
REFERENCE/DOCKET NUMBER: 96-09
TELECOMMUNICATION INFORMATION:
TELEPHONE: 206-442-6672
TELEX:
TELEFAX: 206-442-6678
INFORMATION FOR SEQ ID NO: 9:
SEQUENCE CHARACTERISTICS:
LENGTH: 152 amino acids
TYPE: amino acid
STRANDEDNESS: Single
TOPOLOGY: Linear
MOLECULE TYPE: No. 6046028E
US-08-950-720A-9

RESULT 4
US-08-219-878A-1
Query Match 1 GPTTICGAGELNDALQFVCGDRGFNPKTGIGSSRRAPOTGIVDECCFRSCDLRLEMV 60
; Sequence 1, Application US/08219878A.
; Patent No. 547354
GENERAL INFORMATION:
APPLICANT: Bradford, A. Jameson and Renato Baserga
TITLE OF INVENTION: IGF-1 Analogs
NUMBER OF SEQUENCES: 5
CORRESPONDENCE ADDRESS:
ADDRESSEE: Woodcock Washburn
ADDRESSEE: Kurtz Mackiewicz & No. 5473054ris
Db 33 GPTTICGAGELNDALQFVCGDRGFNPKTGIGSSRRAPOTGIVDECCFRSCDLRLEMV 92
Db 61 CAPLKAQAKSARSRAQRHDMPKTQKYOPPSTNWKMKGQRKKGISTBEHK 86
Db 93 CAPLKAQAKSARSRAQRHDMPKTQK 118

STREET: One Liberty Place - 46th Floor
 CITY: Philadelphia
 STATE: PA
 COUNTRY: USA
 ZIP: 19103

COMPUTER READABLE FORM:
 MEDIUM TYPE: DISKETTE, 3.5 INCH, 1.44 MB STORAGE
 COMPUTER: IBM PC Compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: WORDPERFECT 5.1
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/219,878A
 FILING DATE: 30-MAR-1994
 CLASSIFICATION: 514
 PRIORITY APPLICATION DATA:
 APPLICATION NUMBER: US/07/881,524
 FILING DATE: 08-MAY-1992
 ATTORNEY/AGENT INFORMATION:
 REFERENCE/DOCKET NUMBER: 33-229
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: (215) 568-3100
 TELEFAX: (215) 568-3439
 INFORMATION FOR SEQ ID NO: 1:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 153
 TYPE: amino acid
 TOPOLOGY: linear

US-08-219-878A-1

Query Match 78.3%; Score 468; DB 1; Length 153;
 Best Local Similarity 100.0%; Pred. No. 7.3e-48;
 Matches 86; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 GPEITLCAELDIALQFVCGDRGFYFNKPTGSSRRAPQTGIVDECCFRSCDLRLEMV 60
 Db 49 GPEITLCAELDIALQFVCGDRGFYFNKPTGSSRRAPQTGIVDECCFRSCDLRLEMV 108

Qy 61 CAPLKAKSARSAVRDQRTDMPKTK 86
 Db 109 CAPLKAKSARSAVRDQRTDMPKTK 134

RESULT 5

PCT-US93-04329-1

SEQUENCE 1, Application PC/US9304329

GENERAL INFORMATION:
 APPLICANT: Bradford A. Jameson and Renato Baserga
 TITLE OF INVENTION: IGF-1 Analogs
 NUMBER OF SEQUENCES: 7

CORRESPONDENCE ADDRESS:
 ADDRESSEE: Woodcock, Washburn
 STREET: 1100 NORTH GLEBE ROAD
 CITY: ARLINGTON
 STATE: VA
 COUNTRY: USA
 ZIP: 22201

COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: PatentIn Release #1.0, Version #1.25
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/09/142,583A
 FILING DATE: 29-OCT-1998
 ATTORNEY/AGENT INFORMATION:
 CLASSIFICATION: <Unknown>
 REFERENCE/DOCKET NUMBER: NO PCT/GB97/00658
 FILING DATE: 11-MAR-1997
 APPLICATION NUMBER: GB 9605124.8
 FILING DATE: 11-MAR-1996
 ATTORNEY/AGENT INFORMATION:
 NAME: SADOFF, B. J.
 REFERENCE/DOCKET NUMBER: 36663
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: 7038164000
 TELEFAX: 7038164100

INFORMATION FOR SEQ ID NO: 11:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 156 amino acids
 TYPE: amino acid
 TOPOLOGY: linear
 MOLECULE TYPE: protein
 SEQUENCE DESCRIPTION: SEQ ID NO: 11:

US-09-142-583A-11

Query Match 78.3%; Score 468; DB 3; Length 156;
 Best Local Similarity 100.0%; Pred. No. 7.5e-48;
 Matches 86; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 GPETLGGAEVLDAQFVCGDRGPFVNKPTGYSRSSRRAPOQTGIVDECFCRSODIRLEMY 60
 52 GPETLGGAEVLDAQFVCGDRGPFVNKPTGYSRSSRRAPOQTGIVDECFCRSODIRLEMY 111

QY 61 CAPLKAQSKARSVRAQRHIDMPKIQK 86
 Db 112 CAPLKAQSKARSVRAQRHIDMPKIQK 137

RESULT 7
 Patent No. 5405942-1.
 APPLICANT: BELL, GRAEME I.; RALL, LESLIE B.; MERRYWEATHER, JAMES P.
 TITLE OF INVENTION: PRERRO INSULIN-LIKE GROWTH FACTORS
 ; I AND II
 NUMBER OF SEQUENCES: 16
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/07/65,673
 FILING DATE: 16-JUN-1987
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: 630,557
 FILING DATE: 19-JUL-1984
 SEQ ID NO:1
 LENGTH: 119
 5405942-1

Query Match 77.1%; Score 461; DB 6; Length 119;
 Best Local Similarity 98.8%; Pred. No. 3.6e-47; Matches 85; Conservativeness 0; Mismatches 1; Indels 0; Gaps 0;
 1 GPETLGGAEVLDAQFVCGDRGPFVNKPTGYSRSSRRAPOQTGIVDECFCRSODIRLEMY 60
 15 GPETLGGAEVLDAQFVCGDRGPFVNKPTGYSRSSRRAPOQTGIVDECFCRSODIRLEMY 74

QY 61 CAPLKAQSKARSVRAQRHIDMPKIQK 86
 Db 75 CAPLKAQSKARSVRAQRHIDMPKIQK 100

RESULT 8
 US-08-989-251-41
 Sequence 41, Application US/08989251
 Patent No. 6017731

GENERAL INFORMATION:
 APPLICANT: Tekamp-Olson, Patricia
 TITLE OF INVENTION: METHOD FOR EXPRESSION OF HETEROLOGOUS PROTEINS IN YEAST
 NUMBER OF SEQUENCES: 41
 CORRESPONDENCE ADDRESS:
 ADDRESS: Bell Seltzer IP Group of Alston & Bird, LLP
 STREET: 305 Glenwood Ave. Suite 310
 CITY: Raleigh
 STATE: NC
 COUNTRY: US
 ZIP: 27622

COMPUTER READABLE FORM:
 COMPUTER TYPE: PC-DOS/MS-DOS
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: PatentIn Release #1.0, Version #1.30

CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/09/340,250
 FILING DATE:
 CLASSIFICATION:
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: 08/989,251
 FILING DATE:
 ATTORNEY/AGENT INFORMATION:
 NAME: Spruill, W. Murray
 REGISTRATION NUMBER: 32,943
 REFERENCE/DOCKET NUMBER: 5784-4

TELECOMMUNICATION INFORMATION:
 TELEPHONE: 919 420 2202
 TELEFAX: 919 831 3175

INFORMATION FOR SEQ ID NO: 41:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 191 amino acids
 TYPE: amino acid
 TOPOLOGY: linear
 MOLECULE TYPE: protein

US-09-340-250-41

Query Match 76.5%; Score 457.5; DB 3; Length 191;
 Best Local Similarity 98.9%; Pred. No. 1.7e-46; Matches 86; Conservativeness 0; Mismatches 0; Indels 1; Gaps 1;

QY 1 GPETLGGAEVLDAQFVCGDRGPFVNKPTGYSRSSRRAPOQTGIVDECFCRSODIRLEMY 60
 Db 86 GPETLGGAEVLDAQFVCGDRGPFVNKPTGYSRSSRRAPOQTGIVDECFCRSODIRLEMY 145

QY 61 CAPLKAQSKARSVRAQRHIDMPKIQK 86

Db 112 CAPLKAQSKARSVRAQRHIDMPKIQK 172

RESULT 9
 US-09-340-250-41
 Sequence 41, Application US/09340250
 Patent No. 6083723

GENERAL INFORMATION:
 APPLICANT: Tekamp-Olson, Patricia
 TITLE OF INVENTION: METHOD FOR EXPRESSION OF HETEROLOGOUS PROTEINS IN YEAST
 NUMBER OF SEQUENCES: 41
 CORRESPONDENCE ADDRESS:
 ADDRESS: Bell Seltzer IP Group of Alston & Bird, LLP
 STREET: 305 Glenwood Ave. Suite 310
 CITY: Raleigh
 STATE: NC
 COUNTRY: US
 ZIP: 27622

COMPUTER READABLE FORM:
 COMPUTER TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: PatentIn Release #1.0, Version #1.30

CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/09/340,250
 FILING DATE:
 CLASSIFICATION:
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: 08/989,251
 FILING DATE:
 ATTORNEY/AGENT INFORMATION:
 NAME: Spruill, W. Murray
 REGISTRATION NUMBER: 32,943
 REFERENCE/DOCKET NUMBER: 5784-4

TELECOMMUNICATION INFORMATION:
 TELEPHONE: 919 420 2202
 TELEFAX: 919 831 3175

INFORMATION FOR SEQ ID NO: 41:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 191 amino acids
 TYPE: amino acid
 TOPOLOGY: linear
 MOLECULE TYPE: protein

US-09-340-250-41

Query Match 76.5%; Score 457.5; DB 3; Length 191;
 Best Local Similarity 98.9%; Pred. No. 1.7e-46; Matches 86; Conservativeness 0; Mismatches 0; Indels 1; Gaps 1;

QY 1 GPETLGGAEVLDAQFVCGDRGPFVNKPTGYSRSSRRAPOQTGIVDECFCRSODIRLEMY 60
 Db 86 GPETLGGAEVLDAQFVCGDRGPFVNKPTGYSRSSRRAPOQTGIVDECFCRSODIRLEMY 145

QY 61 CAPLKAQSKARSVRAQRHIDMPKIQK 86

Db 112 CAPLKAQSKARSVRAQRHIDMPKIQK 172

RESULT 10
 US-08-989-251-41
 Query Match 76.5%; Score 457.5; DB 3; Length 191;
 Best Local Similarity 98.9%; Pred. No. 1.7e-46; Matches 86; Conservativeness 0; Mismatches 0; Indels 1; Gaps 1;
 TYPE: amino acid
 TOPOLOGY: linear
 MOLECULE TYPE: protein

RESULT 10
 US-09-528-108-41
 Sequence 41, Application US/09528108
 Patent No. 631923
 GENERAL INFORMATION:
 APPLICANT: Texamp Olson, Patricia
 TITLE OF INVENTION: METHOD FOR EXPRESSION OF HETEROLOGOUS
 NUMBER OF SEQUENCES: 41
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: Bell Seltzer IP Group of Alston & Bird, LLP
 STREET: 3605 Glenwood Ave. Suite 310
 CITY: Raleigh
 STATE: NC
 COUNTRY: US
 ZIP: 27622
 COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: Patentin Release #1.0, Version #1.30
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/09/528,108
 FILING DATE:
 CLASSIFICATION:
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: 09/989,251
 FILING DATE:
 ATTORNEY/AGENT INFORMATION:
 NAME: Shull, W. Murray
 REGISTRATION NUMBER: 32,943
 REFERENCE/DOCKET NUMBER: 57-84-4
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: 919 420 2202
 TELEFAX: 919 881 3175
 INFORMATION FOR SEQ ID NO: 41:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 191 amino acids
 TYPE: amino acid
 TOPOLOGY: linear
 MOLECULE TYPE: protein
 US-09-528-108-41

Query Match 76.5%; Score 457.5; DB 4; Length 191;
 Best Local Similarity 98.9%; Pred. No. 1.7e-46; 0; Mismatches 0; Indels 1; Gaps 1;
 Matches 86;

QY 1 GPFETLCGAELVLDALQFGVQGDGFYFNKPTGCGSSRRAPOTGIVINDECCFSCDILRLEMVY 60
 DB 86 GPFETLCGAELVLDALQFGVQGDGFYFNKPTGCGSSRRAPOTGIVINDECCFSCDILRLEMVY 145

RESULT 11
 US-08-160-890A-47
 Sequence 47, Application US/08460890A
 Patent No. 5991109
 GENERAL INFORMATION:
 APPLICANT: Woo, Savio L.C.
 APPLICANT: Smith, Louis C.
 APPLICANT: Cristiano, Richard J.
 APPLICANT: Gottchalk, Stephen
 TITLE OF INVENTION: NUCLEAR ACID TRANSPORTER SYSTEMS AND
 METHODS OF USE
 NUMBER OF SEQUENCES: 65
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: Lyon & Lyon
 STREET: 633 West Fifth Street
 CITY: Los Angeles
 STATE: California
 COUNTRY: U.S.A.

RESULT 12
 US-08-167-641C-47
 Sequence 47, Application US/08167641C
 Patent No. 603384
 GENERAL INFORMATION:
 APPLICANT: Woo, Savio L.C.
 APPLICANT: Smith, Louis C.
 APPLICANT: Cristiano, Richard J.
 APPLICANT: Gottchalk, Stephen
 TITLE OF INVENTION: NUCLEAR ACID TRANSPORTER SYSTEMS AND
 METHODS OF USE
 NUMBER OF SEQUENCES: 65
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: Lyon & Lyon
 STREET: 633 West Fifth Street
 CITY: Los Angeles
 STATE: California
 COUNTRY: U.S.A.

ADDRESSEE: Lyon & Lyon
 STREET: 633 West Fifth Street
 STREET: Suite 4700
 CITY: Los Angeles
 STATE: California
 COUNTRY: U.S.A.
 ZIP: 90071-2066
 COMPUTER READABLE FORM:
 MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
 COMPUTER: storage
 COMPUTER: IBM Compatible
 OPERATING SYSTEM: IBM P.C. DOS 5.0
 SOFTWARE: FastSEQ for Windows 2.0
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/660,890A
 FILING DATE: June 5, 1995
 CLASSIFICATION: 435
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: 09/167,641
 FILING DATE: December 14, 1993
 APPLICATION NUMBER: 07/855,389
 FILING DATE: March 20, 1992
 APPLICATION NUMBER: PCU/US93/02725
 FILING DATE: March 19, 1993
 ATTORNEY/AGENT INFORMATION:
 NAME: Warburg, Richard J.
 REGISTRATION NUMBER: 32,327
 REFERENCE/DOCKET NUMBER: 212/066
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: (213) 489-1600
 TELEFAX: (213) 955-0440
 TELEX: 67-3510
 INFORMATION FOR SEQ ID NO: 47:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 78 amino acids
 TYPE: amino acid
 STRANEDNESS: Single
 TOPOLOGY: linear
 MOLECULE TYPE: Peptide
 US-08-460-890A-47

Query Match 68.9%; Score 412; DB 2; Length 78;
 Best Local Similarity 97.4%; Pred. No. 1.4e-41; 0; Mismatches 2; Indels 0; Gaps 0;
 Matches 75;

QY 4 TICGAELVLDALQFGVQGDGFYFNKPTGCGSSRRAPOTGIVINDECCFSCDILRLEMVYCAP 63
 DB 2 TICGAELVLDALQFGVQGDGFYFNKPTGCGSSRRAPOTGIVINDECCFSCDILRLEMVYCAP 61

QY 64 LKPKAARSVRQHTD 80
 DB 62 LRPARSARSVRQHTD 78

RESULT 13
 US-08-167-641C-47
 Sequence 47, Application US/08167641C
 Patent No. 603384
 GENERAL INFORMATION:
 APPLICANT: Woo, Savio L.C.
 APPLICANT: Smith, Louis C.
 APPLICANT: Cristiano, Richard J.
 APPLICANT: Gottchalk, Stephen
 TITLE OF INVENTION: NUCLEAR ACID TRANSPORTER SYSTEMS AND
 METHODS OF USE
 NUMBER OF SEQUENCES: 65
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: Lyon & Lyon
 STREET: 633 West Fifth Street
 CITY: Los Angeles
 STATE: California
 COUNTRY: U.S.A.

ZIP: 90071-2066
 COMPUTER READABLE FORM:
 MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
 COMPUTER: IBM Compatible
 OPERATING SYSTEM: IBM P.C. DOS 5.0
 SOFTWARE: FastSEQ for Windows 2.0
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/167,641C
 FILING DATE: December 14, 1993
 CLASSIFICATION: 435
 PRIOR APPLICATION DATA:
 NAME: Warburg, Richard J.
 APPLICATION NUMBER: 07/855,389
 FILING DATE: March 20, 1992
 REFERENCE/DOCKET NUMBER: 32,327
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: (213) 489-1600
 TELEFAX: (213) 955-0440
 TELEX: 67-3510
 INFORMATION FOR SEQ ID NO: 47:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 78 amino acids
 MOLECULE TYPE: Peptide

Query Match: 68.9%; Score 412; DB 3; Length 78;
 Best Local Similarity 97.4%; Pred. No. 1.4e-41; 0; Mismatches 0; Indels 0; Gaps 0;
 Matches 75; Conservative 2; STRANDEDNESS: single
 TOPOLOGY: linear
 LENGTH: 78 amino acids
 TYPE: amino acid

Query Match: 68.9%; Score 412; DB 3; Length 78;
 Best Local Similarity 97.4%; Pred. No. 1.4e-41; 0; Mismatches 0; Indels 0; Gaps 0;
 Matches 75; Conservative 2; STRANDEDNESS: single
 TOPOLOGY: linear
 LENGTH: 78 amino acids
 TYPE: amino acid

Query Match: 68.9%; Score 412; DB 3; Length 78;
 Best Local Similarity 97.4%; Pred. No. 1.4e-41; 0; Mismatches 0; Indels 0; Gaps 0;
 Matches 75; Conservative 2; STRANDEDNESS: single
 TOPOLOGY: linear
 LENGTH: 78 amino acids
 TYPE: amino acid

Query Match: 68.9%; Score 412; DB 3; Length 78;
 Best Local Similarity 97.4%; Pred. No. 1.4e-41; 0; Mismatches 0; Indels 0; Gaps 0;
 Matches 75; Conservative 2; STRANDEDNESS: single
 TOPOLOGY: linear
 LENGTH: 78 amino acids
 TYPE: amino acid

Query Match: 68.9%; Score 412; DB 3; Length 78;
 Best Local Similarity 97.4%; Pred. No. 1.4e-41; 0; Mismatches 0; Indels 0; Gaps 0;
 Matches 75; Conservative 2; STRANDEDNESS: single
 TOPOLOGY: linear
 LENGTH: 78 amino acids
 TYPE: amino acid

RESULT 13
 US-08-160-971A-47
 Sequence 47, Application US/08460971A
 Patient No. 615016
 GENERAL INFORMATION:
 APPLICANT: Woo, Savio L.C.
 APPLICANT: Smith, Louis C.
 APPLICANT: Cristiano, Richard J.
 APPLICANT: Gottchalk, Stephen
 TITLE OF INVENTION: NUCLEIC ACID TRANSPORTER SYSTEMS AND METHODS OF USE
 NUMBER OF SEQUENCES: 65
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: Lyon & Lyon
 STREET: 633 West Fifth Street
 CITY: Los Angeles
 STATE: California
 COUNTRY: U.S.A.
 ZIP: 90071-2066

COMPUTER READABLE FORM:
 MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
 COMPUTER: IBM Compatible
 OPERATING SYSTEM: IBM P.C. DOS 5.0
 SOFTWARE: FastSEQ for Windows 2.0
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/167,641C
 FILING DATE: June 5, 1995
 CLASSIFICATION: 536
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: 08/167,641C
 FILING DATE: December 14, 1993

APPLICATION NUMBER: 07/855,389
FILING DATE: March 20, 1992
APPLICATION NUMBER: PCT/US93/02725

ATTORNEY/AGENT INFORMATION:
NAME: Walburg, Richard J.
REGISTRATION NUMBER: 32,327
REFERENCE/DOCKET NUMBER: 212/078

TELECOMMUNICATION INFORMATION:
TELEPHONE: (213) 489-6600
TELEFAX: (213) 955-0440

INFORMATION FOR SEQ ID NO: 47:
SEQUENCE CHARACTERISTICS:
LENGTH: 78 amino acids

TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide

US-08-462-040-47
Query Match 68.9%; Score 412; DB 3; Length 78;
Best Local Similarity 97.4%; Pred. No. 1, 4e-41;
Matches 75; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 4 TLGGAEVLDAQTVCGDRGFGYENKPTGCGSSSRRAPOTGIVDECCRSQDIRLEMYCAP 63
Db 2 TLGAGELVDAQTVCGDRGFGYENKPTGCGSSSRRAPOTGIVDECCRSQDIRLEMYCAP 61
QY 64 LKRAKSARSVRAQRHTD 80
Db 62 LRPARSARSAVRQRHTD 78

RESULT 15
US-07-953-230A-9

Sequence 9, Application US/07953230A
Patient No. 57679
GENERAL INFORMATION:

APPLICANT: CHEN, Thomas T
TITLE OF INVENTION: INSULIN-LIKE GROWTH FACTORS ISOLATED
TITLE OF INVENTION: FROM RAINBOW TROUT
NUMBER OF SEQUENCES: 12
CORRESPONDENCE ADDRESS:
ADDRESSEE: Burns, Boane, Swecker & Mathis
STREET: George Mason Bldg., Washington & Prince Sts.
CITY: Alexandria
STATE: Virginia
COUNTRY: United States
ZIP: 22313-104

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent in Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/953,230A
FILING DATE: 30-SEP-1992
CLASSIFICATION: 435

ATTORNEY/AGENT INFORMATION:
NAME: Crane-Ferley, Sharon E
REGISTRATION NUMBER: 36,113
REFERENCE/DOCKET NUMBER: 028755-010
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 836-6620
TELEFAX: (703) 836-2021
INFORMATION FOR SEQ ID NO: 9:
SEQUENCE CHARACTERISTICS:
LENGTH: 176 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear

MOLECULE TYPE: protein
US-07-953-230A-9

Query Match 66.6%; Score 398; DB 1; Length 176;
Best Local Similarity 62.8%; Pred. No. 1, 7e-39;
Matches 76; Conservative 10; Mismatches 19; Indels 16; Gaps 1;
QY 1 GPETICGAGLVDALQPGCGDRGFGYENKPTGCGSSSRRAPOTGIVDECCRSQDIRLEMY 60
Db 45 GPETICGAGLVDALQPGCGDRGFGYENKPTGCGSSSRRAPOTGIVDECCRSQDIRLEMY 104
QY 61 CAPIKPKASARSAVRQRHTD 104
Db 105 CAPVKGKARSAVRQRHTDMPRTPKVSTAVSVDRGTERTAQHPDKTPKKEVHORN 164
QY 105 T 105
Db 165 S 165

Search completed: March 3, 2004, 08:06:37
Job time: 14.9157 secs

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protein - protein search, using sw model

un on: March 3, 2004, 07:50:54 ; Search time 11.5964 Seconds (without alignments)

sequence: 912.445 Million cell updates/sec

title: US-09-852-261-2

effect score: 598

sequence: 1 GPFICGAELVDALOFVCGD..... STNKNTKSRRKGSSIFEEHK 110

scoring table: BLOSUM2

Gapop 10.0 , Gapext 0.5

total number of hits satisfying chosen parameters: 283366

minimum DB seq length: 0

maximum DB seq length: 200000000

post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

database : PIR_77:*

1: PIR1:*

2: PIR2:*

3: PIR3:*

4: PIR4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

result No.	Score	Query Match	Length	DB ID	Description
1	560	93.6	195	1 IGHU1B	insulin-like growth factor I precursor, splice form B [validated] - human
2	521.5	87.2	159	2 A26912	insulin-like growth
3	503.5	84.2	133	2 A40912	insulin-like growth
4	494	82.6	181	2 A27804	insulin-like growth
5	468	78.3	137	1 IGGP1	insulin-like growth
6	468	78.3	137	2 A36552	insulin-like growth
7	468	78.3	153	1 IGHU1	insulin-like growth
8	464.5	77.7	153	2 S12825	insulin-like growth
9	463	77.4	122	2 PNO622	insulin-like growth
10	463	77.4	153	1 IGB01	insulin-like growth
11	459	76.8	154	2 JC2483	insulin-like growth
12	455	76.1	138	2 S22878	insulin-like growth
13	455	76.1	154	2 A33390	insulin-like growth
14	450	75.3	20	2 B27804	insulin-like growth
15	447	74.7	127	2 A25540	insulin-like growth
16	432	72.2	127	2 A40912	insulin-like growth
17	422	70.6	153	2 A41399	insulin-like growth
18	419.5	70.2	153	2 A36079	insulin-like growth
19	403.5	67.5	161	2 C54270	insulin-like growth
20	401	67.1	2	2 C44012	insulin-like growth
21	401	67.1	175	2 A41396	insulin-like growth
22	401	67.1	188	2 B54270	insulin-like growth
23	401	67.1	188	2 B54270	insulin-like growth
24	399	66.7	149	2 D54270	insulin-like growth
25	398	66.6	176	2 A46244	insulin-like growth
26	298.5	49.9	126	2 S66485	insulin-like growth
27	293	49.0	193	2 A53697	insulin-like growth
28	264.5	44.2	214	2 B46244	insulin-like growth
29	248.5	41.6	187	2 T10897	insulin-like growth

ALIGNMENTS

RESULT 1

IGHU1B

insulin-like growth factor I precursor, splice form B [validated] - human

N;Alternate names: IGF-1B; somatomedin IB-EI amide

N;Contains: insulin-like growth factor IB-EI amide

C;Species: Homo sapiens (man)

C;Date: 30-Jun-1987 #sequence revision 30-Jun-1987 #text_change 31-Dec-2000

C;Accession: A01611; A26811; S30410; B48960; A41664

R;Rotwein, P.; Pollack, K.M.; Dister, D.K.; Krivi, G.G.

J. Biol. Chem. 261, 4828-4832, 1986

A;Title: Organization and expression of the human insulin-like growth factor I gene. Alterr

A;Reference number: A92581; PMID:86168194; PMID:2937782

A;Accession: A01611

A;Molecule type: DNA

A;Residues: 1-195 <ROT1>

R;Rotwein, P.

Proc. Natl. Acad. Sci. U.S.A. 83, 77-81, 1986

A;Title: Two insulin-like growth factor I messenger RNAs are expressed in human liver.

A;Reference number: A26181; MUID:86094355; PMID:3455760

A;Accession: A26181

A;Molecule type: mRNA

A;Residues: 1-195 <ROT2>

A;Cross-references: GB:MI1568; NID:9183111; PIDN:AAA52539_1; PID:9183112

R;Sandberg Nordqvist, A.C.; Stahlbom, P.A.; Lake, M.; Sara, V.R.

Submitted to the EMBL Data Library, November 1990

A;Description: Nucleotide sequence of the human fetal brain IGF-1b.

A;Reference number: S30540

A;Accession: S30540

A;Molecule type: mRNA

A;Residues: 1-195 <SAN>

A;Cross-references: EMBL:X56774; NID:932991; PIDN:CAA40093_1; PID:932992

R;Sandberg-Nordqvist, A.C.; Stahlbom, P.A.; Reinecke, M.; Collins, V.P.; von Holst, H.; S

Cancer Res. 53, 2475-2478, 1993

A;Title: Characterization of insulin-like growth factor 1 in human primary brain tumors.

A;Reference number: A48960; MUID:93265440; PMID:8495408

A;Accession: A48960

A;Molecule type: mRNA

A;Residues: 1-195 <ZB2>

A;Cross-references: GB:X56774; NID:932991; PIDN:CAA40093_1; PID:932992

A;Experimental source: anaplastic oligodendroglioma

A;Note: sequence modified after extraction from NCBI backbone

A;Note: the authors translated the codon CAG for residues 124 and 133 as Glu

A;Note: sequence extracted from NCBI backbone (NCBINI133058)

R;Siedfried, J.M.; Kasprzyk, P.G.; Treton, A.M.; Mulshine, J.L.; Quinn, K.A.; Cuttitta, F.

Proc. Natl. Acad. Sci. U.S.A. 89, 8107-8111, 1992

A;Title: A mitogenic peptide amide encoded within the B peptide domain of the insulin-like growth factor number: A42644; MUID:92390398; PMID:1325646

A;Reference number: A42644; MUID:92390398; PMID:1325646

A;Contents: annotation; IBE1; amidated carboxyl end

C;Comments: For an alternative splice form, see PIR:IGHU1.

C;Genetics:

A;Gene: GDB:IGF1

A;Cross-references: GDB:120081; OMIM:147440
 A;Map Position: 12q22-12q24.1
 A;Introns: 21/3; 74/1; 134/3
 C;Superfamily: insulin
 C;Keywords: alternative splicing; amidated carboxyl end; growth factor; plasma
 F;1-21/Domain: signal sequence #status predicted <SIG>
 F;22-48/Domain: propeptide #status predicted <PRO>
 F;49-118/Domain: insulin-like growth factor I #status predicted <MAT>
 F;49-77/Domain: insulin chain B-like #status predicted <CHB>
 F;78-89/Domain: insulin connecting C peptide-like #status predicted <CHC>
 F;90-110/Domain: insulin chain A-like #status predicted <CHA>
 F;111-118/Domain: D peptide #status predicted <CDN>
 F;119-195/Domain: carboxyl-terminal propeptide (B peptide) #status predicted <CHE>
 F;151-172/Product: insulin-like growth factor I B-El amide #status predicted <MA2>
 F;154-96, 66-109, 95-109/Disulfide bonds: #status predicted
 F;172/Modified site: amidated carboxyl end (Arg) (amide in mature form from following 91

Query Match 93.6%; Score 560; DB 1; Length 195;
 Best Local Similarity 100.0%; Pred. No. 5.4e-51; Mismatches 0; Indels 0; Gaps 0;
 Matches 103; Conservative 0;

Qy 1 GPRTLCCAGELVLDALQFVQGDRGFYENPTGQSSRRAPQNGIVBCCFRSDIRLEMV 60
 Db 49 GPRTLCCAGELVLDALQFVQGDRGFYENPTGQSSRRAPQNGIVBCCFRSDIRLEMV 108

Qy 61 CAPIKPKASRSVRAQHTDMKTKQKQPSNNTKQSRRKG 103
 Db 109 CAPIKPKASRSVRAQHTDMKTKQKQPSNNTKQSRRKG 151

RESULT 2

A26859
 insulin-like growth factor IB precursor - rat

C;Species: Rattus norvegicus (Norway rat)
 C;Accession: A26859
 R;Shimatsu, A.; Rotwein, P.
 Nucleic Acids Res. 15, 71-96, 1987
 A;Title: Sequence of two rat insulin-like growth factor I mRNAs differing within the 5'-
 A;Reference number: A26859; MUID:8615577; PMID:3658684
 A;Accession: A26859
 A;Molecule type: mRNA
 A;Residues: 1-159 <SHI>
 A;Cross-references: GB:X05107; GB:M32260; GB:Y00429; NID:956424; PIDN:CAA29480.1; PID:95

C;Superfamily: insulin
 C;Keywords: alternative splicing; growth factor

Query Match 87.2%; Score 521.5; DB 2; Length 199;
 Best Local Similarity 89.2%; Pred. No. 4.5e-47; Mismatches 9; Indels 1; Gaps 1;
 Matches 99; Conservative 2; Mismatches 9; Indels 1; Gaps 1;

Qy 1 GPRTLCCAGELVLDALQFVQGDRGFYENPTGQSSRRAPQNGIVBCCFRSDIRLEMV 60
 Db 49 GPRTLCCAGELVLDALQFVQGDRGFYENPTGQSSRRAPQNGIVBCCFRSDIRLEMV 108

Qy 61 CAPIKPKASRSVRAQHTDMKTKQKQPSNNTKQSRRKG 110
 Db 109 CAPIKPKASRSVRAQHTDMKTKQKQPSNNTKQSRRKG 159

RESULT 3

A40912
 insulin-like growth factor I precursor form 1 - rat

C;Species: Rattus norvegicus (Norway rat)
 C;Accession: A40912
 C;Date: 28-Feb-1992 #sequence_change 20-Feb-1992 #text_change 16-Jul-1999
 C;Title: Molecular cloning of rat insulin-like growth factor I complementary deoxyribonu

C tides.
 A;Reference number: A40912; MUID:8828198; PMID:3453891
 A;Accession: A40912
 A;Status: preliminary

A;Molecule type: mRNA
 A;Residues: 1-133 <ROB>
 A;Cross-references: GB:M15480; NID:9204749; PIDN:AAA41385.1; PID:9204750
 C;Superfamily: insulin
 C;Keywords: insulin
 Query Match 84.2%; Score 503.5; DB 2; Length 133;
 Best Local Similarity 86.5%; Pred. No. 2.9e-45; Mismatches 2; Indels 1; Gaps 1;
 Matches 96; Conservative 2; Mismatches 12; Indels 1; Gaps 1;

Qy 1 GPRTLCCAGELVLDALQFVQGDRGFYENPTGQSSRRAPQNGIVBCCFRSDIRLEMV 60
 Db 23 GPRTLCCAGELVLDALQFVQGDRGFYENPTGQSSRRAPQNGIVBCCFRSDIRLEMV 82

Qy 61 CAPIKPKASRSVRAQHTDMKTKQKQPSNNTKQSRRKG 110
 Db 83 CAPIKPKASRSVRAQHTDMKTKQKQPSNNTKQSRRKG 133

RESULT 4

A27804
 insulin-like growth factor I precursor - rat

C;Species: Rattus norvegicus (Norway rat)
 C;Accession: A27804; 165202
 R;Shimatsu, A.; Rotwein, P.
 J. Biol. Chem. 262, 7949-7900, 1987
 A;Title: Mosaic evolution of the insulin-like growth factors. Organization, sequence, A;Reference number: A27804; MUID:8722423; PMID:3034909
 A;Accession: A27804
 A;Status: preliminary
 A;Molecule type: DNA
 A;Residues: 1-181 <SHI>
 A;Cross-references: GB:M15650; GB:J02743; NID:9204296; PIDN:AAA41214.1; PID:9204299
 R;Roberts, C.T.
 Biochem. Biophys. Commun. 146, 1154-1159, 1987
 A;Title: Rat IGF-I cDNA's contain multiple 5'-untranslated regions.
 A;Reference number: 152218; MUID:8729855; PMID:3619921
 A;Accession: 165202
 A;Status: preliminary; translated from GB/EMBL/DDJB
 A;Molecule type: mRNA
 A;Residues: 1-27 <REB>
 A;Cross-references: GB:W17594; NID:9204759; PIDN:AAA41390.1; PID:9204760
 C;Superfamily: insulin
 C;Keywords: alternative splicing

Query Match 82.6%; Score 494; DB 2; Length 181;
 Best Local Similarity 84.4%; Pred. No. 3.8e-44; Mismatches 13; Indels 0; Gaps 0;
 Matches 92; Conservative 4; Mismatches 13; Indels 0; Gaps 0;

Qy 1 GPRTLCCAGELVLDALQFVQGDRGFYENPTGQSSRRAPQNGIVBCCFRSDIRLEMV 60
 Db 49 GPRTLCCAGELVLDALQFVQGDRGFYENPTGQSSRRAPQNGIVBCCFRSDIRLEMV 108

Qy 61 CAPIKPKASRSVRAQHTDMKTKQKQPSNNTKQSRRKG 109
 Db 109 CAPIKPKASRSVRAQHTDMKTKQKQPSNNTKQSRRKG 157

RESULT 5

IGGP1
 insulin-like growth factor I precursor - guinea pig

C;Species: Cavia porcellus (guinea pig)
 C;Accession: S12719
 R;Bell, G.I.; Stempin, M.M.; Fong, N.M.; Seino, S.
 Nucleic Acids Res. 18, 4275, 1990
 A;Title: Sequence of a cDNA encoding guinea pig IGF-I.
 A;Reference number: S12719; MUID:9033447; PMID:2377480
 A;Accession: S12719
 A;Molecule type: mRNA
 A;Residues: 1-137 <BEL>
 A;Cross-references: EMBL:X52951
 A;Note: it is uncertain whether Met-1 or Met-8 is the initiator

C;Superfamily: insulin
 C;Keywords: glycoprotein; growth factor; plasma
 F;1-32/Domain: signal sequence #status predicted <SIG>
 F;33-102/Domain: insulin chain B-like growth factor I #status predicted <MAT>
 F;33-61/Domain: insulin chain B-like #status predicted <CHB>
 F;62-73/Domain: insulin connecting C peptide-like #status predicted <CHC>
 F;74-94/Domain: insulin chain A-like #status predicted <CHA>
 F;95-102/Domain: D peptide #status predicted <CHD>
 F;103-17/Domain: carboxyl terminal propeptide (B peptide) #status predicted <CHE>
 F;174/Domain: carboxyl terminal propeptide (A peptide) #status predicted <CHB>
 F;174/Domain: carboxyl terminal propeptide (B peptide) #status predicted <CHC>
 F;174/Domain: carboxyl terminal propeptide (A peptide) #status predicted <CHA>
 F;174/Domain: carboxyl terminal propeptide (B peptide) #status predicted <CHD>
 F;174/Domain: carboxyl terminal propeptide (A peptide) #status predicted <CHE>
 F;174/Domain: carboxyl terminal propeptide (B peptide) #status predicted <CHB>
 F;174/Domain: carboxyl terminal propeptide (A peptide) #status predicted <CHC>
 F;174/Domain: carboxyl terminal propeptide (B peptide) #status predicted <CHA>
 F;174/Domain: carboxyl terminal propeptide (A peptide) #status predicted <CHD>
 F;174/Domain: carboxyl terminal propeptide (B peptide) #status predicted <CHE>
 Query Match 78.3%; Score 468; DB 1; Length 137;
 Best Local Similarity 100.0%; P-Value 1.5e-41; DB 1; Length 137;
 Matches 86; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 GPEVICGAEVLDALQFVCGDRGFVNPKPTGIGSSRRAPQPTGIVDECCPFRSDLLRLEMV 60
 Db 33 GPEVICGAEVLDALQFVCGDRGFVNPKPTGIGSSRRAPQPTGIVDECCPFRSDLLRLEMV 92
 QY 61 CAPIKPKAKSARSVRAQRHTDMPKIQK 86
 Db 93 CAPIKPKAKSARSVRAQRHTDMPKIQK 118

RESULT 6

insulin-like growth factor Ia precursor - human

C;Species: Homo sapiens (man)
 C;Date: 12-Apr-1991 #sequence_revision 12-Apr-1991 #text_change 16-Jul-1999
 C;Accession: A36552
 R;Trabin, G.; Yee, D.; Bruenner, N.; Rotwein, P.
 Mol. Endocrinol., 4, 194-1950, 1990
 A;Title: A novel human insulin-like growth factor I messenger RNA is expressed in normal A;Reference number: A36552; MUID:91187000; PMID:2082190
 A;Accession: A36552
 A;Status: preliminary
 A;Molecule type: mRNA
 A;Residues: 1-137 <TOB>
 A;Cross-references: GB:NM37484; NID:9184833; PIDN:AAA52789.1; PID:9184834
 C;Superfamily: insulin

Query Match 78.3%; Score 468; DB 2; Length 137;
 Best Local Similarity 100.0%; P-Value 1.5e-41; DB 2; Length 137;
 Matches 86; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 GPEVICGAEVLDALQFVCGDRGFVNPKPTGIGSSRRAPQPTGIVDECCPFRSDLLRLEMV 60
 Db 33 GPEVICGAEVLDALQFVCGDRGFVNPKPTGIGSSRRAPQPTGIVDECCPFRSDLLRLEMV 92

QY 61 CAPIKPKAKSARSVRAQRHTDMPKIQK 86
 Db 93 CAPIKPKAKSARSVRAQRHTDMPKIQK 118

RESULT 7

IGHU
 insulin-like growth factor I precursor, splice form A [validated] - human
 N;Alternative name: IGF-I long splice form precursor; IGF-IA; somatomedin C
 C;Species: Homo sapiens (man)
 C;Date: 24-Apr-1984 #sequence_revision 30-Jun-1987 #text_change 31-Dec-2000
 C;Accession: A92581; A92614; A92622; A60433; S30519; A48960; 157
 R;Röthlein, P.; Pollock, K.M.; Didier, D.K.; Krivi, G.G.
 J. Biol. Chem., 261, 4820-4832, 1986
 A;Title: Organization and sequence of the human insulin-like growth factor I gene. Alter A;Reference number: A92581; MUID:86166194; PMID:2937782
 A;Accession: A92581
 A;Molecule type: DNA
 A;Residues: 1-153 <ROT>
 A;Cross-references: GB:NM14156; NID:9183107; PIDN:AAA52539.1; PID:9183110
 R;de Pagter-Holtzhuizen, P.; van Schaik, F.M.A.; Verduin, G.J.B.; Bouma, FEBs Lett. 195, 179-184, 1985
 A;Title: Organization of the human genes for insulin-like growth factors I and II. A;Reference number: A91356; MUID:8610862; PMID:300251

A;Accession: A23614
 A;Molecule type: DNA
 A;Residues: 24-153 <DEP>
 A;Cross-references: GB:NM103420; GB:X00362; NID:933020; PIDN:CAA27152.1; PID:933021; GB:X01
 R;Jansen, M.; van Schaik, F.M.A.; Ricker, A.T.; Bullock, B.; Woods, D.E.; Gabay, K.H.; Nature 306, 603-611, 1983
 A;Title: Sequence of cDNA encoding human insulin-like growth factor I precursor.
 A;Reference number: A93321; MUID:84068210; PMID:635992
 A;Accession: A93321
 A;Accession: A93321
 A;Molecule type: mRNA
 A;Residues: 1-153 <JAN>
 A;Cross-references: GB:NM00173; NID:933015; PIDN:CAA24998.1; PID:933016
 A;Note: Met-24 is proposed as a likely initiator
 R;Steinbergh, P.H.; Kooren-Raeest, A.M.C.B.; Clautjens, C.B.J.M.; Sussenbach, J.S.
 Biochem. Biophys. Res. Commun. 175, 507-514, 1991
 A;Title: Complete nucleotide sequence of the high molecular weight human IGF-I mRNA.
 A;Reference number: JT0571; MUID:91207342; PMID:2018498
 A;Accession: JT0571
 A;Molecule type: mRNA
 A;Residues: 1-153 <STE>
 A;Cross-references: EMBL:X57025; NID:933007; PIDN:CAA40342.1; PID:933008
 R;Le Bouc, Y.; Dreyer, D.; Jeager, F.; Binoux, M.; Schedlermeyer, P.
 FEBS Lett. 196, 108-112, 1986
 A;Title: Complete characterization of the human IGF-I nucleotide sequence isolated from a
 A;Reference number: A23622; MUID:86108910; PMID:2935423
 A;Accession: A23622
 A;Molecule type: mRNA
 A;Residues: 1-153 <LEB>
 A;Cross-references: GB:NM27544; NID:9184829; PIDN:AAA52787.1; PID:9306927
 R;Rinderknecht, E.; Humel, R.E.
 J. Biol. Chem. 253, 2765-2776, 1978
 A;Title: The amino acid sequence of human insulin-like growth factor I and its structural
 A;Reference number: A9226; MUID:98130171; PMID:632300
 A;Accession: A9226
 A;Molecule type: protein
 A;Residues: 49-118 <RIN>
 R;Karey, K.P.; Marquardt, H.; Sirbasku, D.A.
 Blood 74, 1084-1092, 1989
 A;Title: Human platelet-derived mitogens. Identification of insulinlike growth factors I and II
 A;Reference number: A60483; MUID:89323462; PMID:2752153
 A;Accession: A60483
 A;Molecule type: protein
 A;Residues: 49-53, 'X', 55-65, 'X', 67-75 <KAR>
 R;Nordqvist Sandberg, A.C.; Stahlboom, P.A.; Lake, M.; Sara, V.R.
 Submitted to the EMBL Data Library, November 1990
 A;Description: Nucleotide sequence of the human fetal brain IGF-1a.
 A;Reference number: S30519
 A;Accession: S30519
 A;Molecule type: mRNA
 A;Residues: 1-153 <NOR>
 A;Cross-references: EMBL:XM56773; NID:932989; PIDN:CAA40092.1; PID:932990
 R;Sandberg-Nordqvist, A.C.; Stahlboom, P.A.; Reinecke, M.; Collins, V.P.; von Holst, H.; Cancer Res. 53, 2475-2478, 1993
 A;Title: Characterization of insulin-like growth factor I in human primary brain tumors.
 A;Reference number: A48960; MUID:93265440; PMID:8495408
 A;Accession: A48960
 A;Molecule type: mRNA
 A;Residues: 1-123, 'E', 125-132, 'E', 134-153 <SAN>
 A;Cross-references: GB:X56773; GB:S61841; NID:932989
 A;Experimental source: anaplastic oligodendroglioma
 A;Note: sequence extracted from NCBIN133056, NCBIP:133057
 R;Rall, L.B.; Scott, J.; Bell, G.I.
 Meth. Enzymol. 146, 239-248, 1987
 A;Title: Human insulin-like growth factor I and II messenger RNA: isolation of complement
 A;Reference number: 157044; MUID:8605102; PMID:3683205
 A;Accession: 157044
 A;Status: preliminary; translated from GB/EMBL/DDJB
 A;Molecule type: mRNA
 A;Residues: 24-153 <RAL>
 A;Cross-references: GB:NM9644; NID:9183119; PIDN:AAA52543.1; PID:9183120

C;Comment: The insulin-like growth factors, isolated from plasma, are structurally and functionally similar to insulin. For an alternative splice form, see PIR:IGHUB.

C;Keywords: C;Genetics: A;Gene: GDB:IGF1

A;Cross-references: GDB:120081; OMIM:147440

A;Map position: 12q22-12q24.1

A;Introns: 21/3; 74/1; 134/3

C;Superfamily: insulin

C;Keywords: alternative splicing; growth factor; plasma

F;1-21/Domain: signal sequence #status predicted <SIG>

F;22-48/Domain: propeptide #status predicted <PRO>

F;49-118/Domain: insulin-like growth factor I #status experimental <MAT>

F;49-77/Domain: insulin chain B-like #status experimental <CHB>

F;78-89/Domain: insulin connecting C peptide-like #status experimental <CHC>

F;89-110/Domain: insulin chain A-like #status experimental <CHA>

F;111-118/Domain: D peptide #status experimental <CHD>

F;119-153/Domain: carboxy-terminal propeptide (E peptide) #status predicted <CPRO>

F;154-96-66-109; 95-100/Disulfide bonds: #status predicted

Query Match 78.3%; Score 468; DB 1; Length 153;

Best Local Similarity 100.0%; Pred. No. 1.6e-41; Mismatches 0; Indels 0; Gaps 0;

Matches 86; Conservative 0; MisMatches 0; Indels 0; Gaps 0;

QY 1 GPETLGAGELVDAQFVCGDRGDFYFNKPTGTYGSSSSRRAPQTGIVDECFCRSCLDRLEMY 60

Db 49 GPETLGAGELVDAQFVCGDRGDFYFNKPTGTYGSSSSRRAPQTGIVDECFCRSCLDRLEMY 108

QY 61 CAPLKPAAKSARSAVRAQHDTMPKQK 86

Db 109 CAPLKPAAKSARSAVRAQHDTMPKQK 134

RESULT 8

SL2825-like growth factor I precursor - pig

N;Alternate names: somatomedin C

C;Species: Sus scrofa domesticus (domestic pig)

C;Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 16-Jul-1999

C;Accession: SL2825; S21488; A34938; A60738

R;Mueller, M.; Breit, G.

Nucleic Acids Res. 18, 364, 1990

A;Title: Nucleotide sequence of porcine insulin-like growth factor I: 5' untranslated region

A;Reference number: SL2825; MUID:9021822; PMID:2326169

A;Accession: SL2825

A;Status: preliminary

A;Molecule type: DNA

A;Residues: 1-153 <MUE>

A;Cross-references: EMBL:X52388

R;Dickson, M.C.; Huskisson, N.S.; Gilmour, R.S.

Submitted to the EMBL Data Library, November 1989

A;Description: Porcine insulin-like growth factor gene: sequence of exon and 5' non-coding region

A;Reference number: S21488

A;Accession: S21488

A;Molecule type: DNA

A;Cross-references: EMBL:X17638; NID:91995; PID:CAA35632.1; PID:g1996

R;Javavick, A.; Simmen, R.C.M.

Mol. Endocrinol. 2, 674-681, 1988

A;Title: Porcine insulin-like growth factor-I (pIGF-1): complementary deoxyribonucleic acid sequence

A;Reference number: A34938; MUID:89036956; PMID:3211153

A;Accession: A34938

A;Molecule type: mRNA

A;Residues: Y, 21-153 <TAV>

A;Cross-references: GB:M31175

R;Francis, G.L.; Owens, P.C.; McNeil, K.A.; Wallace, J.C.; Ballard, F.J.

J. Endocrinol. 122, 681-687, 1989

A;Title: Purification, amino acid sequences and assay cross-reactivities of porcine insulin

A;Reference number: A60738; MUID:90039035; PMID:2809477

A;Accession: A60738

A;Molecule type: protein

A;Residues: 49-117, X, <FRA>

C;Genetics:

Query Match 77.7%; Score 464.5; DB 2; Length 153;

Best Local Similarity 87.3%; Pred. No. 3.8e-41; Mismatches 5; Indels 7; Gaps 1;

Matches 89; Conservative 1; MisMatches 5; Indels 7; Gaps 1;

QY 1 GPETLGAGELVDAQFVCGDRGDFYFNKPTGTYGSSSSRRAPQTGIVDECFCRSCLDRLEMY 60

Db 49 GPETLGAGELVDAQFVCGDRGDFYFNKPTGTYGSSSSRRAPQTGIVDECFCRSCLDRLEMY 108

QY 61 CAPLKPAAKSARSAVRAQHDTMPKQK 95

Db 109 CAPLKPAAKSARSAVRAQHDTMPKQK 150

RESULT 9

PN0622

insulin-like growth factor Ia precursor - dog (fragment)

C;Species: Canis lupus familiaris (dog)

C;Date: 10-Mar-1994 #sequence_revision 10-Mar-1994 #text_change 07-May-1999

C;Accession: PN0622

R;Delffontaine, P.; Lou, H.; Harrison, D.G.; Bernstein, K.E.

Gene 110, 305-316, 1993

A;Title: Sequence of a cDNA encoding dog insulin-like growth factor I.

A;Reference number: PN0622; MUID:93366192; PMID:8359700

A;Accession: PN0622

A;Molecule type: mRNA

A;Residues: 1-122 <DBL>

C;Comment: This protein is a potent inducer of DNA synthesis in multiple cell types, a growth factor.

C;Keywords: insulin

C;Gene: IGF1a

C;Superfamily: insulin

Query Match 77.4%; Score 463; DB 2; Length 122;

Best Local Similarity 98.8%; Pred. No. 4.4e-41; Mismatches 1; Indels 0; Gaps 0;

Matches 85; Conservative 0; MisMatches 1; Indels 0; Gaps 0;

QY 1 GPETLGAGELVDAQFVCGDRGDFYFNKPTGTYGSSSSRRAPQTGIVDECFCRSCLDRLEMY 60

Db 20 GPETLGAGELVDAQFVCGDRGDFYFNKPTGTYGSSSSRRAPQTGIVDECFCRSCLDRLEMY 79

QY 61 CAPLKPAAKSARSAVRAQHDTMPKQK 86

Db 80 CAPLKPAAKSARSAVRAQHDTMPKQK 105

RESULT 10

IGB01

insulin-like growth factor IA precursor - bovine (fragment)

N;Alternate names: IGF-I; somatomedin C

C;Species: Bos primigenius taurus (cattle)

C;Date: 31-Mar-1988 #sequence_revision 28-Apr-1995 #text_change 18-Jun-1999

C;Accession: S12672; A25623; S00465

R;Fotis, T.; Murphy, C.; Gannon, F.

Nucleic Acids Res. 18, 676, 1990

A;Title: Nucleotide sequence of the bovine insulin-like growth factor 1 (IGF-1) and its mRNA

A;Reference number: S12672

A;Molecule type: mRNA

A;Residues: 1-153 <FCT>

A;Cross-references: EMBL:X15726; NID:9454; PID:CAA3746.1; PID:g455

A;Experimental source: liver

R;Honegger, A.; Humber, R.E.

J. Biol. Chem. 261, 569-575, 1986

A;Title: Insulin-like growth factors I and II in fetal and adult bovine serum. Purification and characterization

A;Reference number: A92585; MUID:8608581; PMID:341093

A;Accession: A25623
 A;Molecule type: Protein
 A;Residues: 49-118 <HON>
 R;Francis, G.L.; Upton, F.M.; Ballard, F.J.; McNeil, K.A.; Wallace, J.C.
 A;Title: Insulin-like growth factors 1 and 2 in bovine colostrum. Sequences and biological activities
 A;Reference number: S00465; MUID:88268820; PMID:3390164
 A;Accession: S00465
 A;Molecule type: Protein
 A;Residues: 49-118 <FRA>
 A;Experimental source: colostrum
 A;Note: a form of IGF-I lacking the first three residues and possessing enhanced biological activity
 C;Superfamily: insulin
 C;Keywords: alternative splicing; colostrum; growth factor; plasma
 F;1/20/Domain: signal sequence (fragment) #status predicted <SIG>
 F;22-48/Domain: propeptide #status predicted <PRO>
 F;49-118/Domain: insulin-like growth factor IIA (active) #status experimental <MAT>
 F;49-77/Domain: insulin B chain-like #status experimental <DOB>
 F;78-89/Domain: insulin connecting C peptide-like #status experimental <DOA>
 F;111-118/Domain: D peptide #status experimental <CHD>
 F;119-153/Domain: carboxyl-terminal propeptide (E Peptide) #status predicted <CP>
 F;54-96-66-109,95-100/Disulfide bonds: #status predicted

 Query Match 77.4%; Score 463; DB 1; Length 153;
 Best Local Similarity 98.8%; Pred. No. 5, 4e-41; Matches 85; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 C;Keywords: alternative splicing; growth factor; plasma
 R;Francis, G.L.; McNeil, K.A.; Wallace, J.C.; Owens, P.C.
 Endocrinology 124:1173-1183, 1989
 A;Title: Sheep insulin chain-like growth factors I and II: sequences, activities and assays.
 A;Reference number: S07198; MUID:89136887; PMID:2537174
 A;Accession: S07198
 A;Molecule type: Protein
 A;Residues: 34-103 <FRA>
 A;Experimental source: fetal plasma
 C;Genetics: C;Intron: 5/3; 59/1; 119/3
 C;Superfamily: insulin
 C;Keywords: alternative splicing; growth factor; plasma
 F;7-33/Domain: propeptide #status predicted <PRO>
 F;34-103/Domain: insulin-like growth factor I (active) #status experimental <MAT>
 F;34-67/Domain: insulin chain B-like #status predicted <DOB>
 F;68-74/Domain: insulin connecting peptide-like #status predicted <DOA>
 F;75-105/Domain: insulin chain A-like #status predicted <DOA>
 F;91-103/Domain: peptide D #status predicted <CHD>
 F;114-139/Domain: carboxyl-terminal propeptide (E Peptide) #status predicted <CP>
 F;139-81,51-94,80-85/Disulfide bonds: #status predicted

 Query Match 75.1%; Score 455; DB 2; Length 138;
 Best Local Similarity 97.7%; Pred. No. 3, 4e-40; Matches 84; Conservative 0; Mismatches 2; Indels 0; Gaps 0;
 C;Keywords: alternative splicing; growth factor; plasma
 R;Francis, G.L.; McNeil, K.A.; Wallace, J.C.; Owens, P.C.
 Endocrinology 124:1173-1183, 1989
 A;Title: Sheep insulin chain-like growth factors I and II: sequences, activities and assays.
 A;Reference number: S07198; MUID:89136887; PMID:2537174
 A;Accession: S07198
 A;Molecule type: Protein
 A;Residues: 34-103 <FRA>
 A;Experimental source: fetal plasma
 C;Genetics: C;Intron: 5/3; 59/1; 119/3
 C;Superfamily: insulin
 C;Keywords: alternative splicing; growth factor; plasma
 F;7-33/Domain: propeptide #status predicted <PRO>
 F;34-103/Domain: insulin-like growth factor I (active) #status experimental <MAT>
 F;34-67/Domain: insulin chain B-like #status predicted <DOB>
 F;68-74/Domain: insulin connecting peptide-like #status predicted <DOA>
 F;75-105/Domain: insulin chain A-like #status predicted <DOA>
 F;91-103/Domain: peptide D #status predicted <CHD>
 F;114-139/Domain: carboxyl-terminal propeptide (E Peptide) #status predicted <CP>
 F;139-81,51-94,80-85/Disulfide bonds: #status predicted

 Query Match 76.8%; Score 459; DB 2; Length 154;
 Best Local Similarity 97.7%; Pred. No. 1, 4e-40; Matches 84; Conservative 0; Mismatches 2; Indels 0; Gaps 0;
 C;Keywords: alternative splicing; growth factor; plasma
 R;Francis, G.L.; Upton, F.M.; Ballard, F.J.; McNeil, K.A.; Wallace, J.C.
 A;Title: Insulin-like growth factors 1 and 2 in bovine colostrum. Sequences and biological activities
 A;Reference number: S00465; MUID:88268820; PMID:3390164
 A;Accession: S00465
 A;Molecule type: Protein
 A;Residues: 1-154 <DIC>
 A;Cross-references: BMBL:Y51358
 A;Keywords: alternative splicing; colostrum; growth factor; plasma
 R;Wong, E.A.; Ohlsen, S.M.; Godfreton, J.A.; Dean, D.M.; Wheaton, J.E.
 DNA 8:649-657, 1989
 A;Title: Cloning of ovine insulin-like growth factor-I cDNAs: heterogeneity in the mRNA
 A;Reference number: A33390; MUID:90126234; PMID:2575490
 A;Accession: A33390
 A;Molecule type: mRNA
 A;Residues: 1-143, 'SS', 46-154 <WON>
 A;Cross-references: GBM30633; NID:9165929; PMID:AA80532.1; PID:9165930
 R;Hey, A.W.; Browne, C.A.; Simpson, R.J.; Thorburn, G.D.
 Biochim. Biophys. Acta 997:27-35, 1989
 A;Title: Simultaneous isolation of insulin-like growth factors I and II from adult sheep

A;Reference number: S04972; MUID:89323215; PMID:2752053
 A;Accession: S07965
 A;Molecule type: protein
 A;Residues: 50-79 <HEX>
 R;Francis, G.L.; McNeill, K.A.; Wallace, J.C.; Ballard, P.J.; Owens, P.C.
 Endocrinology 124, 1173-1183, 1989
 A;Title: Sheep insulin-like growth factors I and II: sequences, activities and assays.
 A;Reference number: S07198; MUID:89136887; PMID:2637174
 A;Accession: S07198
 A;Molecule type: protein
 A;Residues: 50-139 <PRO>
 A;Experimental source: fetal plasma
 A;Genetic
 A;Introns: 21/3; 75/1; 135/3
 C;Superfamily: insulin
 C;Keywords: alternative splicing; growth factor; plasma
 F;1-21/Domain: signal sequence #status predicted <SIG>
 F;22-49/Domain: propeptide #status predicted <PRO>
 F;50-119/Product: insulin-like growth factor I (active) #status experimental <MAT>
 F;50-78/Domain: insulin chain B-like #status predicted <DOB>
 F;59-90/Domain: insulin connecting peptide-like #status predicted <CHC>
 F;91-111/Domain: insulin chain A-like #status predicted <DOA>
 F;112-119/Domain: peptide D #status predicted <CHD>
 F;120-154/Domain: carboxy-terminal propeptide (E peptide) #status predicted <CTP>
 F;155-97-110,96-101/Disulfide bonds: #status predicted <DOA>
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 Best Local Similarity 97.7%; Pred. No. 3; 7e-40;
 Matches 84; Conservative 0; Mismatches 2; Indels 0; Gaps 0;
 Qy 1 GPETLGGAGELVDAQFVCGDRGFYFNKPTGIGSSSRAPQTGIVDECCFRSCDIRRLEMV 60
 Db 50 GPETLGGAGELVDAQFVCGDRGFYFNKPTGIGSSSRAPQTGIVDECCFRSCDIRRLEMV 109
 Qy 61 CAPLKEAKSRSVRAQRHIDMPKQK 86
 Db 110 CAPLKEAKSRSVRAQRHIDMPKQK 135
 RESULT 14
 B27804
 Insulin-like growth factor IA precursor - rat
 N;Alternate names: IGF-IA; somatomedin C
 C;Species: Rattus norvegicus (Norway rat)
 C;Accession: B27804; A227849; JH0133; A28504; JN0088; A32857; A61096
 R;Shimatsu, A.; Rotwein, P.
 J. Biol. Chem. 262, 7894-7900, 1987
 A;Title: Mosaic evolution of the insulin-like growth factors. Organization, sequence, an
 A;Reference number: A27804; MUID:8722423; PMID:3034909
 A;Accession: B27804
 A;Molecule type: DNA
 A;Residues: 1-153 <SH>
 A;Cross-references: GB:M15651; GB:J02743; NID:9204297; PIDN:AAA41215.1; PID:9204300
 R;Casella, S.J.; Smith, E.P.; Van Wyk, J.J.; Joseph, D.R.; Hynes, M.A.; Hoyt, E.C.; Lund
 DNA 6, 325-330, 1987
 A;Title: Isolation of rat testis cDNAs encoding an insulin-like growth factor I precursor
 A;Reference number: A27849; MUID:88003970; PMID:3652906
 A;Accession: A27849
 A;Molecule type: mRNA
 A;Residues: 27-153 <CNS>
 A;Cross-references: GB:M17335; NID:9204751; PIDN:AAA41386.1; PID:9204752
 R;Kato, H.; Okoshi, A.; Miura, Y.; Noguchi, T.
 A;Cross-references: GB:M00698; NID:9220780; PIDN:BA00604.1; PID:9220781
 A;Experimental source: liver
 R;Murphy, L.J.; Bell, G.I.; Duckworth, M.L.; Friesen, H.G.
 Endocrinology 121, 684-691, 1987
 A;Title: Identification, characterization, and regulation of a rat complementary deoxy
 A;Reference number: A28504; MUID:87246437; PMID:355538
 A;Accession: A28504
 A;Molecule type: mRNA
 A;Residues: 46-153 <MUR>
 A;Cross-references: GB:M17714; NID:9204324; PIDN:AAA41227.1; PID:9204325
 R;Kato, H.; Takenaka, A.; Miura, Y.; Nishiyama, M.; Noguchi, T.
 Agric. Biol. Chem. 54, 2225-2230, 1990
 A;Title: Evidence of introduction by molecular cloning of artificial inverted sequence
 A;Reference number: JN0088; MUID:91136779; PMID:1348576
 A;Accession: JN0088
 A;Molecule type: mRNA
 A;Residues: 1-53 <KA2>
 A;Experimental source: liver
 A;Note: the authors present evidence that this mRNA may contain an artificial inversi
 R;Tamura, K.; Kobayashi, M.; Ishii, Y.; Tamura, T.; Hashimoto, K.; Nakamura, S.; Niwa,
 J. Biol. Chem. 264, 5616-5621, 1989
 A;Title: Primary structure of rat insulin-like growth factor-I and its biological acti
 A;Reference number: A32857; MUID:89174609; PMID:2538424
 A;Accession: A32857
 A;Molecule type: protein
 A;Residues: 49-118 <TAM>
 R;Canalis, E.; McCarthy, T.; Centrella, M.
 A;Title: Isolation and characterization of insulin-like growth factor I (somatomedin-C
 A;Reference number: A61096; MUID:88082445; PMID:3335205
 A;Accession: A61096
 A;Molecule type: protein
 A;Residues: 49-53; 118-55-65 <CAN>
 C;Superfamily: insulin
 C;Keywords: alternative splicing; growth factor
 F;49-118/Product: insulin-like growth factor I #status experimental <IG>
 Query Match 75.3%; Score 450; DB 2; Length 153;
 Best Local Similarity 95.3%; Pred. No. 1; 7e-39; 3; Indels 0; Gaps 0;
 Matches 82; Conservative 1; Mismatches 0;
 Qy 1 GPETLGGAGELVDAQFVCGDRGFYFNKPTGIGSSSRAPQTGIVDECCFRSCDIRRLEMV 60
 Db 49 GPETLGGAGELVDAQFVCGDRGFYFNKPTGIGSSSRAPQTGIVDECCFRSCDIRRLEMV 109
 Qy 61 CAPLKEAKSRSVRAQRHIDMPKQK 86
 Db 109 CAPLKEAKSRSVRAQRHIDMPKQK 134
 RESULT 15
 B25540
 Insulin-like growth factor IA precursor - mouse
 N;Alternate names: IGF-IA; somatomedin C
 C;Species: Mus musculus (house mouse)
 C;Date: 30-Jun-1988 #sequence_revision 30-Jun-1988 #text_change 16-Jul-1999
 C;Accession: A25540; T25540; T59090; B25540
 R;Bell, G.I.; Stempel, M.M.; Fong, N.M.; Rall, L.B.
 Nucleic Acids Res. 14, 7873-7882, 1986
 A;Title: Sequences of liver cDNAs encoding two different mouse insulin-like growth fac
 A;Reference number: A93643; MUID:87040760; PMID:3774549
 A;Accession: A25540
 A;Molecule type: mRNA
 A;Residues: 1-127 <BEL>
 A;Cross-references: GB:X04480; NID:951801; PIDN:CAA28168.1; PID:951802
 R;Tollefson, S.E.; Ijaz, R.; McCusker, R.H.; Clemmons, D.R.; Rotwein, P.
 J. Biol. Chem. 264, 13810-13817, 1989
 A;Title: Insulin-like growth factors (IGF) in muscle development. Expression of IGF-I,
 A;Reference number: I55295; MUID:89340472; PMID:2474537
 A;Accession: I55295
 A;Status: preliminary; translated from GB/EMBL/DBJ
 A;Molecule type: DNA
 A;Residues: 49-108 <RES>
 A;Cross-references: GB:M28139; NID:9341835; PIDN:AAA74553.1; PID:9550489
 R;Matthews, L.S.; Norstedt, G.; Palmiter, R.D.
 Proc. Natl. Acad. Sci. U.S.A. 83, 9343-9347, 1986
 A;Title: Regulation of insulin-like growth factor I gene expression by growth hormone.

A:Reference number: 159090; MUID:87092249; PMID:3467309

A:Accession: 159090

A:Status: preliminary; translated from GB/EMBL/DBBJ

A:Molecule type: DNA

A:Residues: 49-108 <EB2>

A:Cross-references: GB:MI:1983; NID:9194495; PID:AAA37925.1; PID:9194495

C:Genetics:

A:Gene: igfl

C:Superfamily: insulin

C:Keywords: alternative splicing; growth factor

F:1-22/Domain: Signal Sequence #status predicted <SIG>

F:23-127/Domain: insulin-like growth factor IA (active) #status predicted <MAT>

F:23-51/Domain: insulin chain B like #status predicted <DOB>

F:52-63/Domain: insulin connecting C peptide-like #status predicted <DOC>

F:64-84/Domain: insulin chain A-like #status predicted <DOA>

F:85-92/Domain: D peptide #status predicted <DDP>

F:93-127/Domain: carboxyl-terminal propeptide (E peptide) #status predicted <CTP>

Query Match 74.7%; Score 447; DB 2; Length 127;

Best Local Similarity 94.2%; Pred. No. 2.1e-39; 2; Mismatches 3; Indels 0; Gaps 0;

Matches 81; Conservative 81;

QY 1 GPETLGGELVLDLQFVGDRGFFFNKPTGKSSSSRAPONGIVIDCCFRSCDRLLEMV 60

Db 23 GPETLGGELVLDLQFVGDRGFFFNKPTGKSSSSRAPONGIVIDCCFRSCDRLLEMV 82

QY 61 CADLKPAAKSRSVRAQRHIDMPKTK 86

Db 83 CADLKPAAKSRSVRAQRHIDMPKTK 108

Search completed: March 3, 2004, 07:56:14

Job time : 12.5964 secs

GenCore version 5.1.6
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OM protein - protein search, using sw model
Run on: March 3, 2004, 07:55:33 ; Search time 150.09 Seconds

(without alignments)
154.752 Million cell updates/sec

Title: US-09-852-261-2

Perfect score: 598

Sequence: 1 GPETIICGAEILVDALQFVCCD.....STNKNTKSQRKGSTFEEHK 110

Scoring table: BLOSUM62

Gapext 10.0 , Gapext 0.5

Searched: 809742 seqs, 211153259 residues

Total number of hits satisfying chosen parameters: 809742

Minimum DB seq. length: 0

Maximum DB seq. length: 200000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Published Applications AA:*

1: /cgn2_6/ptodata/1/pupaa/US07_PUBCOMB.pep:*

2: /cgn2_6/ptodata/1/pupaa/PCT_NEW_PUB.pep:*

3: /cgn2_6/ptodata/1/pupaa/US06_NEW_PUB.pep:*

4: /cgn2_6/ptodata/1/pupaa/US06_PUBCOMB.pep:*

5: /cgn2_5/ptodata/1/pupaa/US07_NEW_PUB.pep:*

6: /cgn2_6/ptodata/1/pupaa/PCTUS_PUBCOMB.pep:*

7: /cgn2_6/ptodata/1/pupaa/US09_NEW_PUB.pep:*

8: /cgn2_6/ptodata/1/pupaa/US09_PUBCOMB.pep:*

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10: /cgn2_6/ptodata/1/pupaa/US09B_PUBCOMB.pep:*

11: /cgn2_6/ptodata/1/pupaa/US09C_PUBCOMB.pep:*

12: /cgn2_6/ptodata/1/pupaa/US09D_PUBCOMB.pep:*

13: /cgn2_6/ptodata/1/pupaa/US10_PUBCOMB.pep:*

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15: /cgn2_6/ptodata/1/pupaa/US10C_PUBCOMB.pep:*

16: /cgn2_6/ptodata/1/pupaa/US10_NEW_PUB.pep:*

17: /cgn2_6/ptodata/1/pupaa/US60_PUBCOMB.pep:*

18: /cgn2_6/ptodata/1/pupaa/US60_PUBCOMB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

* Query Match Length DB ID Description

No. Score Match Length DB ID Description

1 598 100.0 110 9 US-09-852-261-2 Sequence 2, Appli

2 572.5 95.7 111 9 US-09-852-261-6 Sequence 6, Appli

3 560 93.6 115 15 US-10-043-656A-20 Sequence 20, Appli

4 521.5 87.2 133 14 US-10-161-088-2 Sequence 2, Appli

5 494.5 82.7 111 9 US-09-852-261-4 Sequence 4, Appli

6 468 78.3 105 9 US-09-852-261-10 Sequence 10, Appli

7 469 78.3 137 14 US-10-025-651-8 Sequence 8, Appli

8 468 78.3 153 9 US-09-919-497-74 Sequence 74, Appli

9 468 78.3 14 10-136-639-3 Sequence 55, Appli

10 468 78.3 153 14 US-10-07-655-55 Sequence 14, Appli

11 465 77.8 105 9 US-09-852-261-14 Sequence 3, Appli

12 463 77.4 105 14 US-10-238-114-3 Sequence 2, Appli

13 463 77.4 153 14 US-10-038-114-2 Sequence 41, Appli

14 457.5 76.5 191 9 US-09-921-398-41 Sequence 41, Appli

15 457.5 76.5 14 US-10-280-824-41

RESULT 1
US-09-852-261-2
; Sequence 2, Application US/09852261
; Patent No. US2002008477A1
; GENERAL INFORMATION:
; APPLICANT: GOLOSPINK, GEOFFREY
; INVENTOR: TERENGTI, GIORGIO
; TITLE OF INVENTION: REPAIR OF NERVE DAMAGE
; FILE REFERENCE: 117-351
; CURRENT APPLICATION NUMBER: US109-852,261
; CURRENT FILING DATE: 2001-05-10
; PRIOR APPLICATION NUMBER: GB 0011278.9
; PRIOR FILING DATE: 2000-05-10
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO: 2
; TYPE: PRT
; LENGTH: 110
; ORGANISM: Homo sapiens

US-09-852-261-2

Query Match Local Similarity Score 598; DB 9; Length 110;
Matches 110; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 GPETIICGAEILVDALQFVCCD.....STNKNTKSQRKGSTFEEHK 110

Db 1 GPETIICGAEILVDALQFVCCD.....STNKNTKSQRKGSTFEEHK 110

QY 61 CAPLIPAKRSVRAQRHDTMPKTYQYPPSTNTKSQRKGSTFEEHK 110

Db 61 CAPLIPAKRSVRAQRHDTMPKTYQYPPSTNTKSQRKGSTFEEHK 110

RESULT 2
US-09-852-261-6
; Sequence 6, Application US/09852261
; Patent No. US2002008377A1

GENERAL INFORMATION:

APPLICANT: GOLDSPIKE, GEOFFREY

APPLICANT: TERENGH, GIORGIO

TITLE OF INVENTION: REPAIR OF NERVE DAMAGE

FILE REFERENCE: 117-351

CURRENT APPLICATION NUMBER: US/09/852,261

CURRENT FILING DATE: 2001-05-10

PRIOR APPLICATION NUMBER: GB 001278.9

NUMBER OF SEQ ID NOS: 14

SOFTWARE: PatentIn Ver. 2.1

SEQ ID NO 6

LENGTH: 111

TYPE: PRT

ORGANISM: Oryctolagus cuniculus

US-09-852-261-6

Query Match 95.7%; Score 572.5; DB 9; Length 111;

Best Local Similarity 96.4%; Pred. No. 2e-58; Matches 107; Conservative 1; Mismatches 2; Indels 1; Gaps 1;

QY 1 GPETIICGAEIQLVALQFVGDRGFYFNKPTGKSSSRRAPQTGIVDCCFPRSCDLRLEMY 60

Db 1 CAIPLPKAKSRSYRAQRHTDMPKTKQYOPPSNTKNTSQ-RRKGSTPEHK 110

QY 61 CAIPLPKAKSRSYRAQRHTDMPKTKQYOPPSNTKNTSQ-RRKGSTPEHK 111

Db 61 CAIPLPKAKSRSYRAQRHTDMPKTKQYOPPSNTKNTSQ-RRKGSTPEHK 111

RESULT 3

US-10-443-466A-20

Sequence 20, Application US/10443466A

Publication No. US2004001819A1

GENERAL INFORMATION:

APPLICANT: Wang, Yan

APPLICANT: Pachter, Jonathan A

APPLICANT: Hailey, Judith

APPLICANT: Greenberg, Robert

APPLICANT: Leonard Presta

APPLICANT: Brains, Peter

APPLICANT: Feingrash, Diane

APPLICANT: Williams, Denise

APPLICANT: Srinivasan, Mohan

TITLE OF INVENTION: NEURALIZING HUMAN ANTI-IGFR ANTI BODY

CURRENT APPLICATION NUMBER: US/10443,466A

CURRENT FILING DATE: 2003-05-22

PRIOR APPLICATION NUMBER: 60/383,459

PRIOR FILING DATE: 2002-05-24

PRIOR APPLICATION NUMBER: 60/393,214

PRIOR FILING DATE: 2002-07-02

PRIOR APPLICATION NUMBER: 60/436,254

PRIOR FILING DATE: 2002-12-23

NUMBER OF SEQ ID NOS: 120

SOFTWARE: PatentIn version 3.1.

SEQ ID N 20

LENGTH: 195

TYPE: PRT

ORGANISM: Homo sapiens

US-10-443-466A-20

Query Match 93.6%; Score 560; DB 15; length 195;

Best Local Similarity 100.0%; Pred. No. 1.e-56; Matches 103; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 GPETIICGAEIQLVALQFVGDRGFYFNKPTGKSSSRRAPQTGIVDCCFPRSCDLRLEMY 60

Db 9 GPETIICGAEIQLVALQFVGDRGFYFNKPTGKSSSRRAPQTGIVDCCFPRSCDLRLEMY 108

RESULT 5

US-09-852-261-4

Sequence 4, Application US/09852261

Patent No. US20020093477A1

GENERAL INFORMATION:

APPLICANT: GOLDSPIKE, GEOFFREY

APPLICANT: TERENGH, GIORGIO

TITLE OF INVENTION: REPAIR OF NERVE DAMAGE

FILE REFERENCE: 117-351

CURRENT APPLICATION NUMBER: US/09/852,261

CURRENT FILING DATE: 2001-05-10

PRIOR APPLICATION NUMBER: GB 001278.9

PRIOR FILING DATE: 2000-05-10

SOFTWARE: PatentIn Ver. 2.1

SEQ ID NO 4

LENGTH: 111

TYPE: PRT

ORGANISM: Rattus sp.

US-09-852-261-4

Query Match 82.7%; Score 494.5; DB 9; Length 111;

Best Local Similarity 85.6%; Pred. No. 2.1e-49; Matches 95; Conservative 2; Mismatches 13; Indels 1; Gaps 1;

QY 1 GPETIICGAEIQLVALQFVGDRGFYFNKPTGKSSSRRAPQTGIVDCCFPRSCDLRLEMY 60

Db 1 CAIPLPKAKSRSYRAQRHTDMPKTKQYOPPSNTKNTSQ-RRKGSTPEHK 110

QY 61 CAIPLPKAKSRSYRAQRHTDMPKTKQYOPPSNTKNTSQ-RRKGSTPEHK 111

Db 61 CVRCKETKSRSYRAQRHTDMPKTKQSQPLSTHKRKLQRKGSTPEHK 151

RESULT 4

US-10-161-089-2

Sequence 2, Application US/10161088

Publication No. US2003007761A1

GENERAL INFORMATION:

APPLICANT: Parrow, Vendela

APPLICANT: Rosengren, Linda

TITLE OF INVENTION: NEW METHODS

FILE REFERENCE: 13425-11001

CURRENT APPLICATION NUMBER: US/10/161, 088

PRIOR APPLICATION NUMBER: SE 0101934-8

PRIOR FILING DATE: 2001-06-01

NUMBER OF SEQ ID NOS: 3

SOFTWARE: FastSeq for Windows Version 4.0

SEQ ID NO 2

LENGTH: 133

TYPE: PRT

ORGANISM: Homo sapiens

US-10-161-088-2

Query Match 87.2%; Score 521.5; DB 14; Length 133;

Best Local Similarity 89.2%; Pred. No. 2e-52; Matches 99; Conservative 2; Mismatches 9; Indels 1; Gaps 1;

QY 1 GPETIICGAEIQLVALQFVGDRGFYFNKPTGKSSSRRAPQTGIVDCCFPRSCDLRLEMY 60

Db 23 CAIPLPKAKSRSYRAQRHTDMPKTKQYOPPSNTKNTSQ-RRKGSTPEHK 110

QY 61 CAIPLPKAKSRSYRAQRHTDMPKTKQYOPPSNTKNTSQ-RRKGSTPEHK 111

Db 83 CAIPLPKAKSRSYRAQRHTDMPKTKQYOPPSNTKNTSQ-RRKGSTPEHK 133

RESULT 5

US-09-852-261-4

Sequence 4, Application US/09852261

Patent No. US20020093477A1

GENERAL INFORMATION:

APPLICANT: GOLDSPIKE, GEOFFREY

APPLICANT: TERENGH, GIORGIO

TITLE OF INVENTION: REPAIR OF NERVE DAMAGE

FILE REFERENCE: 117-351

CURRENT APPLICATION NUMBER: US/09/852,261

CURRENT FILING DATE: 2001-05-10

PRIOR APPLICATION NUMBER: GB 001278.9

PRIOR FILING DATE: 2000-05-10

SOFTWARE: PatentIn Ver. 2.1

SEQ ID NO 4

LENGTH: 111

TYPE: PRT

ORGANISM: Rattus sp.

US-09-852-261-4

Query Match 82.7%; Score 494.5; DB 9; Length 111;

Best Local Similarity 85.6%; Pred. No. 2.1e-49; Matches 95; Conservative 2; Mismatches 13; Indels 1; Gaps 1;

QY 1 GPETIICGAEIQLVALQFVGDRGFYFNKPTGKSSSRRAPQTGIVDCCFPRSCDLRLEMY 60

Db 1 CAIPLPKAKSRSYRAQRHTDMPKTKQYOPPSNTKNTSQ-RRKGSTPEHK 110

QY 61 CAIPLPKAKSRSYRAQRHTDMPKTKQYOPPSNTKNTSQ-RRKGSTPEHK 111

Db 61 CVRCKETKSRSYRAQRHTDMPKTKQSQPLSTHKRKLQRKGSTPEHK 151

RESULT 5

US-09-852-261-10

Sequence 10, Application US/09852261

Publication No. US2003007761A1

GENERAL INFORMATION:

APPLICANT: Parrow, Vendela

APPLICANT: Rosengren, Linda

TITLE OF INVENTION: NEW METHODS

FILE REFERENCE: 13425-11001

CURRENT APPLICATION NUMBER: US/10/161, 088

PRIOR APPLICATION NUMBER: SE 0101934-8

PRIOR FILING DATE: 2001-06-01

NUMBER OF SEQ ID NOS: 3

SOFTWARE: FastSeq for Windows Version 4.0

SEQ ID NO 2

LENGTH: 133

TYPE: PRT

ORGANISM: Rattus sp.

US-09-852-261-10

Query Match 93.6%; Score 560; DB 15; length 195;

Best Local Similarity 100.0%; Pred. No. 1.e-56; Matches 103; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 GPETIICGAEIQLVALQFVGDRGFYFNKPTGKSSSRRAPQTGIVDCCFPRSCDLRLEMY 60

Db 49 GPETIICGAEIQLVALQFVGDRGFYFNKPTGKSSSRRAPQTGIVDCCFPRSCDLRLEMY 108

QY 61 CAIPLPKAKSRSYRAQRHTDMPKTKQYOPPSNTKNTSQ-RRKGSTPEHK 103

Db 109 CAIPLPKAKSRSYRAQRHTDMPKTKQYOPPSNTKNTSQ-RRKGSTPEHK 151

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; Patent No. US20020083477A1
; GENERAL INFORMATION:
; APPLICANT: GOLDFINK, GEOFFREY
; APPLICANT: TRENCH, GIORGIO
; TITLE OF INVENTION: REPAIR OF NERVE DAMAGE
; FILE REFERENCE: 117-351
; CURRENT APPLICATION NUMBER: US/09/852,261
; CURRENT FILING DATE: 2001-05-10
; PRIORITY NUMBER: GB 0011278.9
; PRIOR FILING DATE: 2000-05-10
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn ver. 2.1
; SEQ ID NO 10
; LENGTH: 105
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-09-852-261-10

Query Match 78.3%; Score 468; DB 9; Length 105;
Best Local Similarity 100.0%; Pred. No. 2.3e-46; Indels 0; Gaps 0;
Matches 86; Conservative 0; Mismatches 0; SEQ ID NO 105
; LENGTH: 105
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-09-919-497-74

Query Match 78.3%; Score 468; DB 9; Length 153;
Best Local Similarity 100.0%; Pred. No. 3.6e-46; Indels 0; Gaps 0;
Matches 86; Conservative 0; Mismatches 0; SEQ ID NO 105
; LENGTH: 153
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-09-919-497-74

Query Match 78.3%; Score 468; DB 9; Length 153;
Best Local Similarity 100.0%; Pred. No. 3.6e-46; Indels 0; Gaps 0;
Matches 86; Conservative 0; Mismatches 0; SEQ ID NO 105
; LENGTH: 153
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-09-919-497-74

RESULT 7
US-10-251-661-8
; Sequence 8, Application US/10251661
; Publication No. US003016655A1
; GENERAL INFORMATION:
; APPLICANT: Albertini, Cristina M.
; APPLICANT: Bear, Mark F.
; TIME OF INVENTION: Methods and Compositions for Regulating
; TIME OF INVENTION: Memory Consolidation
; FILE REFERENCE: 3499_1001-003
; CURRENT APPLICATION NUMBER: US/10/251,661
; CURRENT FILING DATE: 2002-09-20
; PRIOR APPLICATION NUMBER: 60/193,614
; PRIOR FILING DATE: 2000-03-31
; PRIOR APPLICATION NUMBER: PCT/US01/10661
; PRIOR FILING DATE: 2001-04-02
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: PatentIn Version 4.0
; SEQ ID NO 8
; LENGTH: 137
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-10-251-661-8

Query Match 78.3%; Score 468; DB 14; Length 137;
Best Local Similarity 100.0%; Pred. No. 3.2e-46; Indels 0; Gaps 0;
Matches 86; Conservative 0; Mismatches 0; SEQ ID NO 8
; LENGTH: 137
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-10-251-661-8

RESULT 8
US-09-919-497-74
; Sequence 74, Application US/09919497
; Publication No. US2002010662A1
; GENERAL INFORMATION:
; APPLICANT: Ledbetter, Jeffrey A.
; APPLICANT: Harden Ledbetter, Martha S.
; TIME OF INVENTION: BINDING DOMAIN-IMMUNOGLOBULIN FUSION PROTEINS
; FILE REFERENCE: 39009_401C1
; CURRENT APPLICATION NUMBER: US/10/207,655
; CURRENT FILING DATE: 2002-07-25

RESULT 9
US-09-919-497-74
; Sequence 9, Application US/09919497
; Publication No. US2003018592A1
; GENERAL INFORMATION:
; APPLICANT: Ledbetter, Jeffrey A.
; APPLICANT: Harden Ledbetter, Martha S.
; TIME OF INVENTION: BINDING DOMAIN-IMMUNOGLOBULIN FUSION PROTEINS
; FILE REFERENCE: 39009_401C1
; CURRENT APPLICATION NUMBER: US/10/207,655
; CURRENT FILING DATE: 2002-07-25

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NUMBER OF SEQ ID NOS: 426
SOFTWARE: PatentIn version 3.0
SEQ ID NO 55

LENGTH: 153
TYPE: PRT

ORGANISM: Homo sapiens

US-10-207-655-55

Query Match 78.3%; Score 468; DB 14; Length 153;
Best Local Similarity 100.0%; Pred. No. 3.6e-46;
Matches 85; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 GPETLGAELVDALQFVCGDRGFRFVNPKPTGCGSSRRAPQTGIVDECCFRSCDLRLEM 60
Db 49 GPETLGAELVDALQFVCGDRGFRFVNPKPTGCGSSRRAPQTGIVDECCFRSCDLRLEM 108

Qy 61 CAPLKAKSRSVRAQRHTDMPKTK 86

Db 109 CAPLKAKSRSVRAQRHTDMPKTK 134

RESULT 11
US-09-852-261-14

Sequence 1, Application US/09552261
; Patent No. US2003008347A1

GENERAL INFORMATION:

APPLICANT: GOLDSPINK, GEOFFREY

APPLICANT: TERENGT, GIORGIO

TITLE OF INVENTION: REPAIR OF NERVE DAMAGE

FILE REFERENCE: 117-351

CURRENT APPLICATION NUMBER: US/09/852,261

CURRENT FILING DATE: 2001-05-10

PRIOR APPLICATION NUMBER: GB 0011278.9

PRIOR FILING DATE: 2000-05-10

NUMBER OF SEQ ID NOS: 14

SOFTWARE: PatentIn Ver. 2.1

SEQ ID NO 14

LENGTH: 105

TYPE: PRT

ORGANISM: Oryctolagus cuniculus

US-09-852-261-14

Query Match 77.8%; Score 465; DB 9; Length 105;
Best Local Similarity 98.8%; Pred. No. 5.1e-46;
Matches 85; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 GPETLGAELVDALQFVCGDRGFRFVNPKPTGCGSSRRAPQTGIVDECCFRSCDLRLEM 60
Db 1 GPETLGAELVDALQFVCGDRGFRFVNPKPTGCGSSRRAPQTGIVDECCFRSCDLRLEM 60

Qy 61 CAPLKAKSRSVRAQRHTDMPKTK 86

Db 61 CAPLKAKSRSVRAQRHTDMPKTK 86

RESULT 12
US-10-238-114-3

Sequence 3, Application US/10238114

Publication No. US20030100073A1

GENERAL INFORMATION:

APPLICANT: Merial

APPLICANT: ANDRONI, Christine Michele

TITLE OF INVENTION: IGF-1 AS FELINE VACCINE ADJUVANT, IN PARTICULAR AGAINST FELINE

FILE REFERENCE: 454311-3165.1

CURRENT APPLICATION NUMBER: US/10/238,114

CURRENT FILING DATE: 2002-09-10

PRIOR APPLICATION NUMBER: FR 01 11736

PRIOR FILING DATE: 2001-09-11

PRIOR APPLICATION NUMBER: US 6/0/318,666

PRIOR FILING DATE: 2001-09-12

NUMBER OF SEQ ID NOS: 20

SOFTWARE: PatentIn version 3.1

SEQ ID NO 2

LENGTH: 153

TYPE: PRT

ORGANISM: Felis catus

US-10-238-114-2
Query Match 77.4%; Score 463; DB 14; Length 153;
Best Local Similarity 98.8%; Pred. No. 1.4e-45;
Matches 85; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 GPETLGAELVDALQFVCGDRGFRFVNPKPTGCGSSRRAPQTGIVDECCFRSCDLRLEM 60
Db 49 GPETLGAELVDALQFVCGDRGFRFVNPKPTGCGSSRRAPQTGIVDECCFRSCDLRLEM 108

Qy 61 CAPLKAKSRSVRAQRHTDMPKTK 86

Db 109 CAPLKAKSRSVRAQRHTDMPKTK 134

RESULT 13
US-09-921-398-41

Sequence 41, Application US/09921398

Patent No. US200205519A1

GENERAL INFORMATION:

APPLICANT: TEKAMP-OLSON, Patricia

TITLE OF INVENTION: METHOD FOR EXPRESSION OF HETEROLOGOUS

NUMBER OF SEQUENCES: 41

CORRESPONDENCE ADDRESS:

ADDRESSEE: Bell Seltzer IP Group of Alston & Bird, LLP

STREET: 3605 Glenwood Ave. Suite 310

CITY: Raleigh

STATE: NC

COUNTRY: US

ZIP: 27622

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

SEQ ID NO 3

OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: PatentIn Release #1.0, Version #1.30
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/09/921,398
 FILING DATE: 02-Aug-2001
 CLASSIFICATION: <Unknown>
 ATTORNEY/AGENT INFORMATION:
 NAME: Sprull, W. Murray
 REGISTRATION NUMBER: 32,943
 REFERENCE/DOCKET NUMBER: 5784-4
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: 919 420 2202
 TELEFAX: 919 881 3175
 INFORMATION FOR SEQ ID NO: 41:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 191 amino acids
 TYPE: amino acid
 TOPOLOGY: linear
 MOLECULE TYPE: protein
 MOLECULE TYPE: protein
 SEQUENCE DESCRIPTION: SEQ ID NO: 41:
 US-09-921-398-41

Query Match

Best Local Similarity 76.5%; Score 457.5; DB 9; Length 191;
 Matches 86; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

QY 1 GPETLCCAGELVDAQFVCGDRGPFYFNKPTGIGSSSSRRAPQTGIVDCCFRSDDIRLEMV 60
 Db 86 GPTLCCAGELVDAQFVCGDRGPFYFNKPTGIGSSSSRRAPQTGIVDCCFRSDDIRLEMV 145
 QY 61 CAPLPAKSA-RSVAQRHPTDKTOK 86
 Db 146 CAPLPAKSAKRSVRAQRHPTDKTOK 172

RESULT 15

US-10-280-826-41
 Sequence 41, Application US/10280826
 Publication No. US20030077831A1

GENERAL INFORMATION:

APPLICANT: Tekampe-Olson, Patricia

TITLE OF INVENTION: METHOD FOR EXPRESSION OF HETEROLOGOUS

PROTEINS IN YEAST

NUMBER OF SEQUENCES: 41

CORRESPONDENCE ADDRESS:
 ADDRESSEE: Bell Seltzer IP Group of Alston & Bird, LLP

STREET: 3605 Glenwood Ave, Suite 310

CITY: Raleigh

STATE: NC

COUNTRY: US

ZIP: 27622

COMPUTER READABLE FORM:

MEDIUM TYPE: FLOPPY disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: PatentIn Release #1.0, Version #1.30

CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/10/280,826

FILING DATE: 25-Oct-2002

CLASSIFICATION: <Unknown>

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US/08/989,251

FILING DATE: <Unknown>

ATTORNEY/AGENT INFORMATION:

NAME: Sprull, W. Murray

REGISTRATION NUMBER: 32,943

REFERENCE/DOCKET NUMBER: 5784-4

TELECOMMUNICATION INFORMATION:

TELEPHONE: 919 420 2202

TELEFAX: 919 881 3175

INFORMATION FOR SEQ ID NO: 41:

SEQUENCE CHARACTERISTICS:

LENGTH: 191 amino acids

TYPE: amino acid
 TOPOLOGY: linear
 MOLECULE TYPE: protein
 MOLECULE TYPE: protein
 SEQUENCE DESCRIPTION: SEQ ID NO: 41:
 US-10-280-826-41

Query Match 76.5%; Score 457.5; DB 14; Length 191;
 Best Local Similarity 98.9%; Fred. No. 7.8e-45; Matches 86; Conservative 0; Mismatches 0; Indels 1; Gaps 1;
 QY 1 GPETLCCAGELVDAQFVCGDRGPFYFNKPTGIGSSSSRRAPQTGIVDCCFRSDDIRLEMV 60
 Db 86 GPTLCCAGELVDAQFVCGDRGPFYFNKPTGIGSSSSRRAPQTGIVDCCFRSDDIRLEMV 145
 QY 61 CAPLPAKSA-RSVAQRHPTDKTOK 86
 Db 146 CAPLPAKSAKRSVRAQRHPTDKTOK 172

Search completed: March 3, 2004, 08:14:23
 Job time : 151.09 secs

Om protein - protein search, using sw model

Run on: March 3, 2004, 07:50:54 ; Search time 33.125 Seconds
(without alignments)

Scoring table: BLOSUM62
Gapop 10.0 ; Gapext 0.5

Searched: 1017041 seqB, 315518202 residues

Total number of hits satisfying chosen parameters: 1017041

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SPTRNBL25,*
1: sp_archea,*
2: sp_bacteria,*
3: sp_fungi,*
4: sp_human,*
5: sp_invertebrate,*
6: sp_mammal,*
7: sp_mhc,*
8: sp_organelle,*
9: sp_phage,*
10: sp_plant,*
11: sp_rabbit,*
12: sp_virus,*
13: sp_vertebrate,*
14: sp_unclassified,*
15: sp_rvirus,*
16: sp_bacteriop,*
17: sp_archaeap,*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match Length	DB ID	Description
1	590	98.7	139	Q13429 homo sapien
2	486	81.3	165	Q8CAR0 mus musculi
3	468	78.3	130	Q9NBL0 homo sapien
4	468	78.3	137	Q4E20 homo sapien
5	463	77.4	133	Q9NCL1 bov taurus
6	458	76.5	139	P91567 equus cabal
7	450	75.3	127	P77899 rattus sp.
8	447	74.7	153	Q8C4U6 mus musculi
9	422	70.6	153	Q93380 meleagris gallopavo
10	403.5	67.5	161	Q91230 oncorhynchus
11	401	67.1	145	Q91475 salmo salar
12	401	67.1	155	Q91162 oncorhynchus
13	401	67.1	188	P81268 oncorhynchus
14	399.5	66.8	188	Q91965 oncorhynchus
15	399.5	66.7	178	Q91B10 cyprinus carpio
16	399.5	66.7	116	Q91161 oncorhynchus

RESULTS

Result ID	Score	PRELIMINARY:	PRT:	139 AA.
Q13429	Q13429	Q13429; 01-NOV-1995 (TREMBL01. 01. Created)	DT	01-NOV-1995 (TREMBL01. 01. Last sequence update)
		DT 01-JUN-2003 (TREMBL01. 24. Last annotation update)	DE	DE insulin-like growth factor-I (Fragment).
		GN IGF-I.	OS	OS Homo sapiens (Human)
			OC	OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
			OC	OC Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
			OX	OX NCBI_TaxID:9606;
			RN	RN [1]
			RP	RP SSEQUENCE FROM N.A.
			RC	RC TISSUE=Liver;
			RX	RX MEDLINE=95231119; PubMed=7720641;
			RA	RA Chew S.L., Lavender P., Clark A.J., Ross R.J.,
			RT	RT "An alternatively spliced human insulin-like growth factor-I transcript with hepatic tissue expression that diverts away from the mitogenic IGF-I peptide."
			RT	RT Endocrinology 116:1939-1944 (1995).
			RL	RL CC -1- SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY).
			CC	CC -1- SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY.
			DR	DR EMBL: U40870; AAA96152.1; -.
			DR	DR HSPB / 201343; 2G1.
			DR	DR GO: GO-0005576; C: extracellular; IEA.
			DR	DR GO: GO-0005579; P: hormone activity; IEA.
			DR	DR GO: GO-0005782; P: physiological processes; IEA.
			DR	DR InterPro: IPR004825; Ins/IGF/Relax.
			DR	DR PRINTS: PR00019; Insulin; 1.
			DR	DR SMART: SM0078; IIGF; 1.
			DR	DR PROSITE: PS00262; INSULIN; 1.
			FT	FT NON_TER 1
			SQ	SQ SEQUENCE 139 AA; 15611 MW; A62271872CA29DB4 CRC64;

Query Match Score: 98.7%; Score: 590; DB: 4; Length: 139; Best Local Similarity: 99.1%; Pred. No. 76-63;

Matches 109; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

RESULT 2

Qy 1 GPETLGGALVDAQFVCCGDRGFYFNKPTGSSRRAPOTGIVDECCFRSCDLRLEMV 60
Rx RX MEDLINE=88065102; PubMed=3683205;
Qy AC Q9NP10 PRELIMINARY; PRT; 165 AA.
Rx RA Rall L.B., Scott J.J., Bell G.J.;
Db DT 01-OCT-2000 (TREMBLrel. 15, Created)
RT "Human insulin-like growth factor I and II messenger RNA: isolation of
DT 01-OCT-2000 (TREMBLrel. 15, Last sequence update)
RT complementary DNA and analysis of expression";
Db DT 01-OCT-2003 (TREMBLrel. 23, Last sequence update)
RT Meth. Enzymol. 146:239-248 (1987).
Db DE Unknown EST.
Db GN C730016_P09RIK.
Os MUS musculus (Mouse).
Oc Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Ox NCBI_TAXID=10090;
Rn [1] Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
Rp SEQUENCE FROM N.A.
Rc STRAIN=CE7BL/6J; TISSUE=Thymus;
Rx MEDLINE=22354683; Pubmed=12446851;
Ra The FANTOM Consortium,
Rt the RIKEN Genome Exploration Research Group Phase I & II Team;
Rt "Analysis of the mouse transcriptome based on functional annotation of
Rt 60-770 full-length cDNAs";
Rt Nature 420:563-573 (2002).
Rl PRINS; PR0049; Insulin; 1.
Dr SMART; SM0078; IIGF; 1.
Dr PROSITE; PS0062; INSULIN; 1.
Dr SEQUENCE 165 AA; 18473 MW; 2CE0D3DA981C93F8 CRC64;

Query Match 81.3%; Score 486; DB 11; Length 165;
Best Local Similarity 83.5%; Pred. No. 2.7e-50; Indels 0; Gaps 0;
Matches 91; Conservative 4; Mismatches 14; Indels 0; Gaps 0;

Qy 1 GPETLGGALVDAQFVCCGDRGFYFNKPTGSSRRAPOTGIVDECCFRSCDLRLEMV 60
Rx RX MEDLINE=91187000; PubMed=2082190;
Db AC Q9NP10 PRELIMINARY; PRT; 137 AA.
Rx RA Tobin G., Yee D., Brunner N., Rotwein P.;
Db DT 01-NOV-1996 (TREMBLrel. 01, Last sequence update)
RT 01-NOV-1996 (TREMBLrel. 01, Last sequence update)
Db DT 01-JUN-2003 (TREMBLrel. 24, Last sequence update)
DE Insulin-like growth factor I precursor.
Db GN C93 CAPLKPAAKSRSVRAQRHTDMPKTOKSPLSTNKKLQRKGEPKTH 141
Os Homo sapiens (Human).
Oc Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Ox NCBI_TAXID=9606;
Rn [1] Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
Rp SEQUENCE FROM N.A.

RESULT 3

Qy 1 GPETLGGALVDAQFVCCGDRGFYFNKPTGSSRRAPOTGIVDECCFRSCDLRLEMV 60
Rx RX MEDLINE=91187000; PubMed=2082190;
Db AC Q9NP10 PRELIMINARY; PRT; 130 AA.
Rx RA Tobin G., Yee D., Brunner N., Rotwein P.;
Db DT 01-JUN-2003 (TREMBLrel. 15, Last sequence update)
RT "A novel human insulin-like growth factor I messenger RNA is expressed
RT in normal and tumor cells";
Db DR Mol. Endocrinol. 4:1914-1920 (1990).
Cc CC -1- SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY).
Cc CC -1- SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY.
Db DR EMBL; M37484; AAH52898.1; -.
Dr PRINS; PR0049; Insulin; 1.
Dr SMART; SM0078; IIGF; 1.
Dr PROSITE; PS00262; INSULIN; 1.
Dr SEQUENCE 137 AA; 15177 MW; BFC0D1F32AB75D CRC64;
Rp SEQUENCE FROM N.A.

DT 01-MAY-1997 (TREMBlrel. 03, last sequence update)
 DT 01-JUN-2003 (TREMBlrel. 24, last annotation update)
 DB Insulin-like growth factor I.
 OS Rattus sp.
 OC Mammalia; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
 NCBI_TAXID=10118; Rattus.
 RN [1]
 RP PARTIAL SEQUENCE FROM N.A.
 RX MEDLINE=87223423; PubMed=3034909;
 RX Shimatsu A., Rotwein P.; "Mosaic evolution of the insulin-like growth factors. I, A new cDNA clone relating to larger molecular species of rat insulin-like growth factor-I mRNA." Agric. Biol. Chem. 262:7894-7900(1987).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE=9103966; PubMed=1368571;
 RA Kato H., Okoshi A., Miura Y., Noguchi T.; "A new cDNA clone relating to larger molecular species of rat insulin-like growth factor-I mRNA." Agric. Biol. Chem. 54:1599-1601(1990).
 CC -!- SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY)
 CC -!- SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY.
 DR EMBL; D00698; BAA0604.1; -.
 DR HSSP; P01343; 2GFL.
 GO; GO:0005576; C:extracellular; IEA.
 DR GO; GO:0005179; F:hormone activity; IEA.
 DR GO; GO:0007582; P:physiological processes; IEA.
 DR InterPro; IPR004825; InstIGF/relax.
 DR Pfam; PF00049; Insulin.
 DR Pfam; PR00277; INSULINB.
 DR PRINTS; PR00277; INSULINB.
 DR SMART; SM00078; IIGF; 1.
 DR PROSITE; PS00262; INSULIN; 1.
 DR PROSITE; PS00262; INSULIN; 1.
 FT CHAIN: 23
 PROSITE; PS00062; INSULIN; 1.
 FT CHAIN: 92
 SEQUENCE 127 AA; 14106 MW; 104E126CFCA5CB7 CRC64;
 SQ

Query Match 75.3%; Score 450; DB 11; Length 127;
 Best Local Similarity 95.3%; Pred. No. 4.2e-46; Length 127;
 Matches 82; Conservative 1; Mismatches 3; Indels 0; Gaps 0;
 GO; GO:0005576; C:extracellular; IEA.

Qy 1 GPETICGAEVLDAQLQVCGDRGFGYFNPKTGSSRRAPQTGIVDCCFRSCDLRLLEMV 60
 Db 23 GPETICGAEVLDAQLQVCGDRGFGYFNPKTGSSRRAPQTGIVDCCFRSCDLRLLEMV 82
 Qy 61 CAPLKPKAKSARSVRAQRHTDMPKTK 86
 Db 83 CAPLKPKAKSARSVRAQRHTDMPKTK 108

RESULT 9
 093380 PRELIMINARY; PRT; 153 AA.
 ID 093380
 AC 093380;
 DT 01-NOV-1998 (TREMBlrel. 08, last sequence update)
 DT 01-JUN-2003 (TREMBlrel. 24, last annotation update)
 DR Insulin-like growth-factor-I precursor.
 GN IGP1.
 OS Meleagris gallopavo (Common turkey).
 OC Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Meleagris.
 NCBI_TAXID=9103;
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN=BIG 6 ML Tom; TISSUE=Liver;
 RA Czerwinski S.M.; Ashwell C.M.; McMurtry J.P.;
 RT "Cloning of turkey insulin-like growth factor-I (IGF-I)." ;
 RL Submitted (JUN1998) to the EMBL/DBSR databases.
 CC -!- SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY)
 CC -!- SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY.
 DR EMBL; AF074980; AACZ6006.1; -.
 DR HSSP; P01343; 2GFL.
 DR PRINTS; PR00277; INSULINB.
 DR SMART; SM00078; IIGF; 1.
 DR PROSITE; PS00262; INSULIN; 1.
 DR GO; GO:0005576; C:extracellular; IEA.
 DR GO; GO:0005179; F:hormone activity; IEA.
 DR InterPro; IPR004825; InstIGF/relax.
 DR Pfam; PF00049; Insulin.
 DR PRINTS; PR00277; INSULINB.
 DR SMART; SM00078; IIGF; 1.
 DR PROSITE; PS00262; INSULIN; 1.
 KW SIGNAL.
 FT SIGNAL 1 48
 FT CHAIN 49 118 POTENTIAL.
 SQ SEQUENCE 153 AA; 17295 MW; 5AF15B8D13C70B5 CRC64;

Query Match 70.6%; Score 422; DB 13; Length 153;
 Best Local Similarity 89.5%; Pred. No. 1.2e-42; Length 153;
 Matches 77; Conservative 3; Mismatches 6; Indels 0; Gaps 0;

Qy 1 GPETICGAEVLDAQLQVCGDRGFGYFNPKTGSSRRAPQTGIVDCCFRSCDLRLLEMV 60
 Db 49 GPETICGAEVLDAQLQVCGDRGFGYFNPKTGSSRRAPQTGIVDCCFRSCDLRLLEMV 108
 Qy 61 CAPLKPKAKSARSVRAQRHTDMPKTK 86
 Db 109 CAPLKPKAKSARSVRAQRHTDMPKTK 134

RESULT 10
 091230

1 ID 091230 PRELIMINARY; PRT; 161 AA.
 2 AC 091230;
 3 DT 01-NOV-1996 (TREMBLrel. 01, Created)
 4 DT 01-NOV-1996 (TREMBLrel. 01, Last sequence update)
 5 DT 01-JUN-2003 (TREMBLrel. 24, Last annotation update)
 6 DE Insulin-like growth factor-I.
 7 IGF-I.
 8 GN Oncorhynchus tshawytscha (Chinook salmon) (King salmon)
 9 OS Oncorhynchus tshawytscha (Chinook salmon) (King salmon)
 10 OC Bokaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 11 OC Actinopterygii; Neopterygii; Teleostei; Buteleostei; Euteleostomi;
 12 OC Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
 13 NCBI_TaxID=74940;
 14 RN [1] TAXID=74940;
 15 RP SEQUENCE FROM N.A.
 16 RC STRAIN=Big Qualicum River; TISSUE=liver;
 17 RX MEDLINE=93247592; PubMed=7683374;
 18 RA Malis A.E.; Devlin R.H.;
 19 RT "Duplicate insulin-like growth factor-I genes in salmon display alternative splicing pathways.";
 20 RT Mol. Endocrinol. 7:409-422 (1993).
 21 RL SEQUENCE FROM N.A.
 22 RC STRAIN=Big Qualicum River; TISSUE=liver;
 23 RA Devlin R.H.;
 24 RT Submitted (Oct-1994) to the EMBL/GenBank/DDBJ databases.
 25 CC I - SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY).
 26 CC I - SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY.
 27 EMBL: U15961; AAA67267.1; -.
 28 PIR: C54270; C54270.
 29 HSSP: P01343; 2GFI.
 30 GO: GO:0005576; F: hormone activity; IEA.
 31 GO: GO:0005179; F: physiological processes; IEA.
 32 GO: GO:007582; P: physiological processes; IEA.
 33 DR InterPro: IPR004825; Inst/IGF/relax.
 34 DR PRINTS: PRO0277; INSULINB.
 35 DR SMART: SM0078; IGF; 1.
 36 DR PROSITE: PS00262; INSULIN; 1.
 37 DR PROSITE: PS00262; INSULIN; 1.
 38 DR SQ SEQUENCE: 161 AA; 17763 MW; A5A8SD121377B#57 CRC64;
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DR SMART; SM00078; ILGF; 1.
 DR PROSITE; PS00262; INSULIN; 1.
 KW Signal.
 PT NON TER 1 1 POTENTIAL.
 PT SIGNAL <1 18 INSULIN-LIKE GROWTH FACTOR I.
 PT CHAIN 19 >88 R -> X (IN REF. 1).
 PT CONFLICT 73 73
 PT NON TER 155 155 CRC64;
 SQ SEQUENCE 155 AA; 16968 MW; 022FD3CA39CA3160 CRC64;

Query Match 67.1%; Score 401; DB 13; Length 188;
 Best Local Similarity 72.3%; Pred. No. 5e-40; 17; Indels 0; Gaps 0;
 Matches 73; Conservative 11; Mismatches 17; Indels 0; Gaps 0;

Qy 1 GPTLICGAEELVVALQFVGCGDRGFYFKPTGCGSSRRAPQRTGIVDECCRSCLRLLEMY 60
 Db 1 GPTLICGAEELVVALQFVGCGDRGFYFKPTGCGSSRRAPQRTGIVDECCRSCLRLLEMY 60
 19 GPTLICGAEELVVALQFVGCGDRGFYFKPTGCGSSRRAPQRTGIVDECCRSCLRLLEMY 60
 61 CAPLKAQSKAARSVRAQHTDMPTKQXKQPPSTNKTKSQR 101
 Qy 79 CAPVKGAAKSRAVRAQHTDMPTKQXKQPPSTNKTKSQR 119
 Db 45 GPTLICGAEELVVALQFVGCGDRGFYFKPTGCGSSRRAPQRTGIVDECCRSCLRLLEMY 104
 19 GPTLICGAEELVVALQFVGCGDRGFYFKPTGCGSSRRAPQRTGIVDECCRSCLRLLEMY 78

RESULT 13

P81268 PRELIMINARY; PRT; 188 AA.
 ID P81268 PRELIMINARY; PRT; 188 AA.
 AC P81268; (TREMBLrel. 07, Created)
 DT 01-AUG-1998 (TREMBLrel. 07, Last sequence update)
 DT 01-JUN-2003 (TREMBLrel. 24, Last annotation update)
 DB Insulin-like growth factor I precursor.
 GN IGF-I.
 OS Oncorhynchus keta (Chum salmon).
 OC Bokaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Actinopterygii; Neopterygii; Teleostei; Buteleostei; Euteleostomi;
 OC Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
 RN [1] NCBI_TaxID=8018;
 RP SEQUENCE FROM N.A.
 RA Kavsan V.M., Koval A.P., Grebenjuk V.A., Chan S.J., Steiner D.F.,
 RA Roberts C.T. Jr., Leiroth D.;
 RT "Structure of the Chum Salmon Insulin-Like Growth Factor I Gene.",
 RL DNA Cell Biol. 11:729-737(1993).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE=9429659; PubMed=8024699;
 RA Kavsan V.M., Grebenjuk V.A., Koval A.P., Skorokhod A.S.,
 RA Roberts C.T.Jr., Leiroth D.;
 RT "Isolation of a second nonallelic insulin-like growth factor I gene
 from the salmon genome.",
 RL DNA Cell Biol. 13:555-559(1994).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE=9503273; PubMed=7683374;
 RA Koval A., Kulkiv V., Duguay S., Plisetskaya E., Adamo M.I.,
 RA Koval A., Kulik V., Duguay S., Plisetskaya E., Adamo M.I.,
 RA Roberts C.T.Jr., Leiroth D., Kavsan V.;
 RT "Characterization of a salmon insulin-like growth factor I promoter.",
 RL DNA Cell Biol. 13:1057-1062(1994).
 RN [4]
 RP SEQUENCE FROM N.A.
 RX MEDLINE=9503273;
 RA Koval A., Kulik V., Duguay S., Plisetskaya E., Adamo M.I.,
 RA Koval A., Kulik V., Duguay S., Plisetskaya E., Adamo M.I.,
 RA Submitted (MAY-1998) to the EMBL/GenBank/DDBJ databases.
 RL - - SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY).
 CC - - SIMILARITY: BELONGS TO THE INSULIN/IGF/RELAXIN FAMILY.
 DR EMBL; U15960; AAH67665.1; -.
 DR EMBL; U14536; AAH67263.1; -.
 DR PIR; A54270; AA54270; AA54270;
 DR PIR; A54270; AA54270;
 DR PIR; A54270; AA54270;
 DR HSSP; P01343; 2GFL.
 DR GO; GO:0005576; C:extracellular; IEA.
 DR GO; GO:0005579; F:hormone activity; IEA.
 DR GO; GO:007582; P:physiological processes; IEA.
 DR InterPro; IPR004825; Ins/IGF/relax.
 DR Pfam; PF00049; Insulin; 1.
 DR PRINTS; PRO0277; INSULIN.
 DR SMART; SM00078; ILGF; 1.
 DR PROSITE; PS00262; INSULIN; 1.
 SQ SEQUENCE 188 AA; 20782 MW; F4D705BA811024BB CRC64;

Query Match 67.1%; Score 401; DB 13; Length 188;
 Best Local Similarity 72.3%; Pred. No. 5e-40; 17; Indels 0; Gaps 0;
 Matches 73; Conservative 11; Mismatches 17; Indels 0; Gaps 0;

Qy 1 GPTLICGAEELVVALQFVGCGDRGFYFKPTGCGSSRRAPQRTGIVDECCRSCLRLLEMY 60
 Db 45 GPTLICGAEELVVALQFVGCGDRGFYFKPTGCGSSRRAPQRTGIVDECCRSCLRLLEMY 104

QY	61	CAPIKPAKSASVRAORHDMPKTQKQOPSPNTKNSORR	101
Db	105	CAPIKPAKSASVRAORHDMPKTQKQOPSPNTKNSORR CAPFSKGKAANSVRAORHDMPKTQKQOPSPNTKNSORR CAPFSKGKAANSVRAORHDMPKTQKQOPSPNTKNSORR	1455

RESULT 15
Q9IB10 Q9IB10 PRELIMINARY: PRT: 178 AA.

OC	Cyprinidae; Cyprinus							
OX	NCBI TaxID=7962;							
RN	[1]							
RP	SEQUENCE FROM N.A.							
RC	TISSUE=Liver;							
RX	MEDLINE=96241923; PubMed=8680527;							
RA	Liang, Y.H.; Cheng, C.H.; Chan, K.M.;							
RT	"Insulin-like growth factor-I (Igf-1) is the predominantly expressed form of IGF in common carp (Cyprinus carpio)." [1]							
RL	Mol. Mar. Biol. Biotechnol. 5:145-152(1996).							
RN	[2]							
RP	SEQUENCE FROM N.A.							
RA	Vong, O.P.; Chan, K.M.; Cheng, C.H.K.;							
RT	"Common carp insulin-like growth factor-I gene: Genomic organization and functional characterization of the 5'-flanking region." [1]							
RL	Submitted (JAN-2002) to the EMBL/GenBank/DBJ databases.							
CC	--> SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY).							
CC	--> SUBCELLULAR LOCATION: TO THE INSULIN/IGF/RELAXIN FAMILY.							
DR	EMBL; S82374; AAB37702.2; -;							
DR	DR; AF46830; AAP78926.1; -.							
DR	HSSP; PA1343; 23P1.							
GO	GO:0005576; C:extracellular; IPA.							
DR	GO; GO:0005179; F:hormone activity; IEA.							
DR	GO; GO:0007582; P:physiological processes; IEA.							
DR	InterPro; IPR004825; Insl/IGF/relax.							
DR	Prfam; PF00049; Insulin; 1.							
DR	PRINTS; PR00277; INSULINB.							
DR	SMART; SM00078; ILGF; 1.							
DR	PROSITE; PS00262; INSULIN; 1.							
DR	PROSITE; PS00262; INSULIN; 1.							
SQ	SEQUENCE: PS00262; INSULIN; 1.							
SQ	178 AA; 1968 MW; 7075A34FF379C459 CRC64;							
Query	Match	66.8%	Score	399.5	DB	13	Length	178
QY	Best Local Similarity	69.8%	Pred.	No.	7.2e-40			
QY	Matches	74	Conservative	13	Mismatches	4	Indels	1
QY	1	GPRPTICGAGELVLPALQVFGDRGFYFNKPTGQGSSSSRAPOGTVIDECCFRSDCLRLRRT	60					
QY	62	GPFTTICGAGELVLPALQVFGDRGFYFNKPTGQGSSSSRAPOGTVIDECCFRSDCLRLRRT	121					
QY	61	CATLKPAGSARSVTRADQHTDMEKT-QKXQPESTNKTQKPSRKQST	105					
Db	122	CAVPGKGTPTPRSTRAQHTDSRTRTAKPELQPSQSHASXKHOQSS	167					

Search completed: March 3, 2004, 07:55:28
Job time : 36.1325 secs

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: March 3, 2004, 07:50:54 : Search time 7.95181 Seconds
(without alignments)
720.304 Million cell updates/sec

Title: US-09-852-261-2
Perfect score: 598

Sequence: 1 GPERLICGABLVNDALQFVCGD.....STNNKNTKSQRKGSTFEEHK 110

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 141681 seqs, 52070155 residues

Total number of hits satisfying chosen parameters: 141681

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Listing first 45 summaries

Database : SwissProt_42:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query	Length	DB	ID	Description
1	572.5	95.7	143	1	IGF1_RABIT	Q95222 oryctolagus
2	560	93.6	195	1	IGFB_HUMAN	P05019 homo sapien
3	521.5	87.2	133	1	IGFB_MOUSE	P08024 mus musculus
4	494	87.6	181	1	IGFB RAT	P17647 cavia porcellus
5	468	78.3	130	1	IGF1_CAVPO	P01343 homo sapiens
6	468	78.3	153	1	IGFA_HUMAN	P16545 sub scrofa
7	464.5	77.7	153	1	IGF1_PIG	P33712 canis familiaris
8	463	77.4	122	1	IGF1_CANPA	P07455 bos taurus
9	463	77.4	154	1	IGF1_BOVIN	P51457 capra hircus
10	459	76.8	154	1	IGF1_CAPII	P10763 ovis aries
11	455	76.1	154	1	IGF1_SHEEP	P08025 rattus norvegicus
12	450	75.3	153	1	IGFA RAT	P51462 canis lupus familiaris
13	447	74.7	127	1	IGFA_MOUSE	P18254 gallus gallus
14	422	70.6	124	1	IGF1_CONTA	P16501 xenopus laevis
15	422	70.6	153	1	IGF1_CHICK	P02893 suncus murinus
16	419.5	70.2	153	1	IGF1_XENIA	P17085 oncorhynchus tshawytscha
17	414	69.2	81	1	IGF1_SUNNU	P09326 cyprinus carpio
18	403	67.4	122	1	IGF1_HORSE	P09325 oncorhynchus mykiss
19	401	67.1	176	1	IGF1_ONCKI	P09327 oncorhynchus keta
20	399.5	66.8	161	1	IGF1_CYPCA	P09328 oncorhynchus tshawytscha
21	398	65.6	176	1	IGF1_ONCNY	P09329 cyprinus carpio
22	392.5	65.8	161	1	IGF1_CYPCA	P09330 oncorhynchus tshawytscha
23	264.5	44.2	214	1	IGF2_ONCNY	P02816 oncorhynchus tshawytscha
24	241	40.3	179	1	IGF2_SHEEP	P01764 ovis aries
25	235	39.3	128	1	IGF2_CAVPO	P08279 cavia porcellus
26	235	39.3	155	1	IGF2_BOVIN	P07456 bos taurus
27	233	39.0	180	1	IGF2_MOUSE	P09335 mus musculus
28	232.5	38.9	129	1	IGF2_MUSLT	P41694 mustela vison
29	231	38.6	180	1	IGF2_HUMAN	P01344 homo sapiens
30	229.5	38.4	180	1	IGF2_RAT	P01346 rattus norvegicus
31	229	38.3	181	1	IGF2_HORSE	P51459 equus caballus
32	228	38.1	181	1	IGF2_PIG	P23695 sus scrofa
33	222	37.8	166	1	IGF2_CHICK	P33717 gallus gallus

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 141681 seqs, 52070155 residues

Total number of hits satisfying chosen parameters: 141681

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Listing first 45 summaries

Database : SwissProt_42:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

ALIGNMENTS

34	219.5	36.7	139	1	IGF_MYXGL	P22618 myxine glutathione
35	159.5	26.7	50	1	INS_MYOSC	P07453 myoxocephalus
36	158.5	26.5	51	1	INS_GADCA	P01336 gadus callarias
37	155	26.1	51	1	INSI_BATPE	P01337 batrachoides
38	154	25.8	50	1	INS2_BATSP	P01338 batrachoides
39	151	25.3	59	1	INS_HDCC	P09335 hydrolagus
40	149	24.9	51	1	INS_CHIBR	P01327 chinchilla
41	149	24.9	51	1	INS_ZAODH	P12708 zaocys dumbeensis
42	148	24.7	51	1	INS_ALLMI	P12703 alligator mississippiensis
43	146.5	24.5	51	1	INS2_THUTH	P01339 thunnus thynnus
44	146	24.4	51	1	INS_ANSAN	P07454 anser anser
45	145	24.4	51	1	INS_CROTAT	P01334 crotalus atrox

DR EMBL; X03420; CA27152.1; -.
 DR EMBL; X03421; CA27153.1; -.
 DR EMBL; X03422; CA27154.1; -.
 DR PIR; A01611; IGHQB7.
 DR PDB; 1GFL; 15-OCT-94.
 DR PDB; 2GFL; 15-APR-93.
 DR PDB; 3GFL; 18-MAY-99.
 DR Genbank; HGNC:5464; IGF1.
 DR MIM; 147440; -.
 DR GO; GO:0005159; P:insulin-like growth factor receptor binding; TAS.
 DR GO; GO:0005180; P:peptide hormone; TAS.
 DR GO; GO:0005928; P:cell motility; TAS.
 DR GO; GO:0008491; P:DNA replication; TAS.
 DR GO; GO:0008494; P:glycolate metabolism; TAS.
 DR GO; GO:0001517; P:muscle development; TAS.
 DR GO; GO:0001524; P:positive regulation of cell proliferation; TAS.
 DR GO; GO:0001525; P:RAS protein signal transduction; TAS.
 DR GO; GO:0001615; P:signal transduction; TAS.
 DR GO; GO:0001501; P:skeletal development; TAS.
 DR InterPro; IPR004825; Ins/IGF/relax.
 DR Pfam; PF00049; Insulin; 1.
 DR Pfam; PF00277; INSULINB.
 DR SMART; SM00078; ILGF; 1.
 DR PROSITE; PS00262; INSULIN; 1.
 KW Insulin family; Growth factor; 3D-structure; Plasma;
 KW Alternative splicing; Signal; Polymorphism.
 FT SIGNAL 1 21 POTENTIAL.
 FT PROPEP 22 48
 FT CHAIN 49 118
 FT DOMAIN 49 77 B.
 FT DOMAIN 78 89 C.
 FT DOMAIN 90 110 A.
 FT DOMAIN 111 118 D.
 FT PROPEP 119 195 E PEPTIDE.
 FT DISULFID 54 96
 FT DISULFID 66 109
 FT DISULFID 95 100
 FT VARIANT 187 187 A -> D (in dbSNP:6213).
 /PRId=VAR_013945.
 FT STRAND 51 51
 FT TURN 55 55
 FT HELIX 56 69
 FT TURN 87 88
 FT HELIX 91 95
 FT TURN 96 97
 FT STRAND 99 100
 FT HELIX 106 109
 SQ 195 AA; 21841 MW; E88ABCFB01CD1873 CRC64;
 Query Match 93.6%; Score 560; DB 1; Length 195;
 Best Local Similarity 100.0%; Pred. No. 6.3e-53;
 Matches 103; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Name=IGF-1B;
 IsoID=PS05018-1; sequence=displayed;
 Name=IGF-TA
 IsoID=PS05017-1; Sequence=External;
 !- SIMILARITY: Belongs to the insulin family.
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 between the Swiss Institute of Bioinformatics and the EMBL outstation -
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 or send an email to license@isb-sib.ch).
 CC
 DR EMBL; X00482; CA0081701; -.
 DR EMBL; BC012409; AA012409.1; -.
 DR HSSP; P01343; IGF1.
 DR MGD; MGI:96432; IGF1.
 DR GO; GO:001001; Placental cell differentiation; IMP.
 DR InterPro; IPR004825; Ins/IGF/relax.
 DR Pfam; PF00049; Insulin; 1.
 DR PR00277; INSULINB.
 DR SMART; SM00078; IGF; 1.
 DR PROSITE; PS00277; INSULIN; 1.
 KW Insulin family; Growth factor; Plasma; Alternative splicing; Signal.
 FT SIGNAL 1 22
 FT CHAIN 23 92 INSULIN-LIKE GROWTH FACTOR 1B.
 FT DOMAIN 23 51 B.
 FT DOMAIN 52 63 C.
 FT DOMAIN 64 84

OS Mus musculus (Mouse).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
 OC Mammalia; Eutheria; Rodentia; Sciuromorpha; Muridae; Mus.
 OC NCBI_TaxID=10090;
 RN [1]
 RN SEQUENCE FROM N.A.
 RN TISSUE=Liver;
 RN RP TISSUE=Liver;
 RN RX MEDLINE:87040760; PubMed=33774549;
 RN RX MEDLINE:2238257; PubMed=12477932;
 RN RX MEDLINE:87040760; PubMed=12477932;
 RN STRAUSBERG R.L., HEINGOLD E.A., GROUSE L.H., DERGE J.G., SCHULER G.D., KLAUSNER R.D., COILINS P.S., WAGNER L., SHENMEN C.M., SCHAFER C.F., BLATT N.K., ALTSCHUL S.F., ZEEBERG B., BUETOW K.H., SCHAEFER C.F., Hsieh F., HOPKINS R.F., JORDAN H., MOORE T., MAX S.I., WANG J., HSIEH F., DIATCHENKO L., MARUSINA K., FARMER A.A., RUBIN G.M., HONG L., STAPLETON M., SOARES M.B., BONADIO M.F., CASAVANT T.L., SCHERZ T.E., BROWNSTEIN M.J., USDIN T.B., TOSHIYUKI S., CARNICCI P., PRANGE C., RAHA S.S., LOQUELLOANO N.A., PETERS G.J., ABRAMSON R.D., MULLANY S.J., BOSAK S.A., McEWAN P.J., MCKERNAN K.J., MALEK J.A., GUNARATNE P.H., RICHARDS S., WORLEY K.M., HALE S., GARCIA A.M., GAY L.J., HULYK S.W., VILLALON D.K., MUNIZ D.M., SODERBERG B.J., LU X., GIBBS R.A., FAHEY J., HEITON E., KETTEMAN M., MADAN A., RODRIGUES S., SANCHEZ A., WHITING M., MADAN A., YOUNG A.C., SHACHEKHOV Y., BOUFFARD G.G., BLAKESLEY R.W., TOUCHMAN J.W., GREEN B.D., DICKSON M.C., RODRIGUEZ A.C., GRIMWOOD J., SCHMUTZ J., MYERS R.M., SMALUS D.E., BUTTERFIELD Y.S.N., KRYWINSKI M.I., SKALSKA U., MARRA M.A., SCHNEIDER A., SCHEIN J.E., JONES S.J.M., MARRA M.A.; "Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences"; Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903 (2002);
 CC -!- FUNCTION: The insulin-like growth factors, isolated from plasma, are structurally and functionally related to insulin but have a much higher growth-promoting activity.
 CC -!- SUBCELLULAR LOCATION: Secreted.
 CC -!- ALTERNATIVE PRODUCTS:
 CC Event=Alternative splicing; Named isoforms=2;
 CC Name=IGF-1B;
 CC IsoID=PS05018-1; sequence=displayed;
 CC Name=IGF-TA
 CC IsoID=PS05017-1; Sequence=External;
 CC -!- SIMILARITY: Belongs to the insulin family.
 CC
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 CC
 DR EMBL; X00482; CA0081701; -.
 DR EMBL; BC012409; AA012409.1; -.
 DR HSSP; P01343; IGF1.
 DR MGD; MGI:96432; IGF1.
 DR GO; GO:0007399; P:neurogenesis; IMP.
 DR InterPro; IPR004825; Ins/IGF/relax.
 DR Pfam; PF00049; Insulin; 1.
 DR PR00277; INSULINB.
 DR SMART; SM00078; IGF; 1.
 DR PROSITE; PS00277; INSULIN; 1.
 KW Insulin family; Growth factor; Plasma; Alternative splicing; Signal.
 FT SIGNAL 1 22
 FT CHAIN 23 92 INSULIN-LIKE GROWTH FACTOR 1B.
 FT DOMAIN 23 51 B.
 FT DOMAIN 52 63 C.
 FT DOMAIN 64 84

RESULT 3
 IGF1_MOUSE STANDARD; PR00277; 133 AA.
 AC PS05018;
 DT 13-AUG-1987 (Rel. 05, Created)
 DT 13-AUG-1987 (Rel. 05, Last sequence update)
 DT 13-MAR-2004 (Rel. 43, Last annotation update)
 DB Insulin-like growth factor 1B precursor (IGF-1B) (samatomedin).
 GN IGF1 OR IGF-1.

Query Match 87.2%; Score 521.5; DB 1; Length 133; Best Local Similarity 89.2%; Pred. No. 6; Mismatches 99; Conservative 2; Misnatches 9; Indels 1; Gaps 1; or send an email to license@isb-sib.ch).

QY 1 GPETIIGAGELVALQVGCGDGFYFNKPTGQSSRRAPOGTIVDECCFRSCDLRLEM 60

Db 23 GPETIIGAGELVALQVGCGDGFYFNKPTGQSSRRAPOGTIVDECCFRSCDLRLEM 82

QY 61 CAPLKKAKSARSTRAQRTDMPKTYQKOPPSKNTKNSQ_RRKGSFEEHK 110

Db 83 CAPLKKAKSARSTRAQRTDMPKTYQKOPPSKNTKNSQ_RRKGSFEEHK 133

RESULT 4

IGFB-BAT STANDARD; PRT; 181 AA.

ID IGFB-BAT P08247; AC P08247; DT 01-AUG-1988 (Rel. 08, Created) 01-OCT-1991 (Rel. 17, Last sequence update) 10-OCT-2003 (Rel. 42, Last annotation update)

DB Insulin-like growth factor IB precursor (IGF-IB) (Somatomedin).

GN IGFL OR IGF-1.

OS Rattus norvegicus (Rat).

OC Eukaryota; Metazoa; Chordata; Craniota; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.

OX NCBI_TAXID:10116;

SP [1] SEQUENCE FROM N.A.

RA Shimatsu A., Rowein P.;

RT "Mosaic evolution of the insulin-like growth factors. Organization, sequence, and expression of the rat insulin-like growth factor I gene.";

RT J. Biol. Chem. 262:7894-7900 (1987).

RL RN [2] SEQUENCE FROM N.A.

RA MEDLINE=8912759; PubMed=3221878;

RT Robert C.T., Lusky S.R., Low W.L., Seaman W.T., Leroith D.;

RT "Structure of the rat insulin-like growth factor II transcripts differing in the use of multiple polyadenylation sites and differential ribonucleic acid splicing.";

RT Mol. Endocrinol. 2:1115-1126 (1988).

RN [4] SEQUENCE OF 49-118.

RA MEDLINE=891174609; PubMed=2538424;

RT Tamura K., Kobayashi M., Ishii Y., Tamura T., Hashimoto K., Nakamura S., Niwa M., Zapf J.;

RT "Primary structure of rat insulin-like growth factor-I and its biological activities";

RT J. Biol. Chem. 264:5616-5621 (1989);

RA MEDLINE=891174610; PubMed=2538425;

RT "Function: The insulin-like growth factors, isolated from plasma, are structurally and functionally related to insulin but have a much higher growth-promoting activity.

CC CC - - - SUBCELLULAR LOCATION: Secreted.

CC CC - - - ALTERNATIVE PRODUCTS:

CC Name=IGF-BB;

CC Event=Alternative splicing; Named isoforms=2;

CC IsoID=P08044-1; Sequence=Displayed;

RESULT 5

IGFL-CAVPO STANDARD; PRT; 130 AA.

ID IGFL-CAVPO P17647; AC P17647; DT 01-AUG-1990 (Rel. 15, Created) 01-OCT-1990 (Rel. 15, Last sequence update) 10-OCT-2003 (Rel. 42, Last annotation update)

DB Insulin-like growth factor I precursor (IGF-I) (Somatomedin).

GN IGF1.

OS Cavia porcellus (Guinea Pig).

OC Eukaryota; Metazoa; Chordata; Craniota; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Hystricognathi; Caviidae; Cavia.

OX NCBI_TAXID:10141;

RL RN [1] SEQUENCE FROM N.A.

RA TISSUE=Pancreas;

RA MEDLINE=9033447; PubMed=2377480;

RA Bell G.I., Stempien M.M., Fong N.M., Scino S.;

RT "Sequence of a cDNA encoding guinea pig IGF-I.";

RL Nucleic Acids Res. 18:4275-4275 (1990).

--!- FUNCTION: The insulin-like growth factors, isolated from plasma, are structurally and functionally related to insulin but have a much higher growth-promoting activity.

--!- SUBCELLULAR LOCATION: Secreted.

--!- SIMILARITY: Belongs to the insulin family.

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CC or send an email to license@isb-sib.ch).

CC

CC EMBL; X52951; CAA37127.1; -.

CC PIR; S12719; IGF1.

CC InterPro; IPR04825; Ins/IGF/relax.

CC PRINTS; PRO0277; INSULINB.

CC SMART; SM0078; IIGF; I.

CC PROSITE; PS00262; INSULIN; I.

CC insulin family; Growth factor; Plasma; Signal.

CC SIGNAL 1 25 INSULIN-LIKE GROWTH FACTOR I.

FT CHAIN 26 95 B.

FT DOMAIN 26 54 C.

FT DOMAIN 55 66 C.

FT DOMAIN 67 87 A.

FT DOMAIN 88 95 D.

FT PROPEP 96 130 E. PEPTIDE.

FT DISULFID 31 73 BY SIMILARITY.

FT DISULFID 43 86 BY SIMILARITY.

FT DISULFID 72 77 BY SIMILARITY.

FT SEQUENCE 130 AA; 14342 MW; 251B20ABDC5729FF CRC64;

Query Match 78.3%; Score 469; DB 1; Length 130;

Best Local Similarity 100.0%; Prod. No. 2.9e-43; Matches 86; Conservative 0; Mismatches 0; Index 0; Gaps 0;

QY 1 GPETLIGGABLVDALQFVCGDRGFFENKPTGYGSRRAPOTGIVDECCFRSCDIRLEMY 60

Db 26 GPETLIGGABLVDALQFVCGDRGFFENKPTGYGSRRAPOTGIVDECCFRSCDIRLEMY 85

QY 61 CAPLPAKSARSVRQRAHDMPKTQK 86

Db 86 CAPLPAKSARSVRQRAHDMPKTQK 111

RESULT 6

IGFA_HUMAN

ID	IGFA_HUMAN	STANDARD	PRT	153 AA.
AC	201343;			
DT	21-JUL-1986 (Rel. 01, Created)			
DT	13-AUG-1987 (Rel. 05, Last sequence update)			
DT	10-OCT-2003 (Rel. 42, Last annotation update)			
DE	insulin-like growth factor IA precursor (IGF-IA) (Somatomedin C).			
GN	IGF1; OR IGF1.			
OS	Homo sapiens (Human).			
OC	Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;			
OC	Mammalia; Butharia; Primates; Catarrhini; Hominidae; Homo.			
OX	NCBI_TAXID:9606;			
RN	[1] SEQUENCE FROM N.A.			
RP	SEQUENCE FROM N.A.			
RA	MEDLINE=86168194; PubMed=2937782;			
RA	Rotwein P., Pollock K.M., Didier D.K., Krivi G.G.;			
RT	Organization and sequence of the human insulin-like growth factor I gene. Alternative RNA processing produces two insulin-like growth factor I precursor peptides";			
RT	J. Biol. Chem. 261:4828-4832(1986).			
RN	[2] SEQUENCE FROM N.A.			
RP	MEDLINE=8408210; PubMed=6358902;			
RA	Jansen M., van Schaik F.M.A., Röcker A.T., Bullock B., Woods D.B.,			

RA Gabbay K.H., Nussbaum A.J., Subbenbach J.S., van den Brande J.L.; "Sequence of cDNA encoding human insulin-like growth factor I precursor."; RT Nature 306:609-611(1983).
RN [3]
RN SEQUENCE FROM N.A.
RP MEDLINE=86109910; PubMed=2335423;
RX MEDLINE=86109862; PubMed=3002851;
RA le Bouc Y., Dreyer D., Jaeger F., Binoux M., Sondermeyer P.;
RT "Isolated characterization of the human IGF-I nucleotide sequence
isolated from a newly constructed adult liver cDNA library.";
RL FEBS Lett. 196:108-112(1986).
RN [4]
RN SEQUENCE FROM N.A.
RP SEQUENCE FROM N.A.
RC TISSUE=Liver;
RX MEDLINE=91207342; PubMed=2018498;
RA Steenbergen P.H., Koonen-Reemst A.M.C.B., Cleutjens C.B.J.M.,
Suesenbach J.S.;
RT "Complete nucleotide sequence of the high molecular weight human
IGF-I mRNA.";
RL Biochem. Biophys. Res. Commun. 175:507-514(1991).
RN [6]
RN SEQUENCE FROM N.A.
RC TISSUE=Brain;
RX MEDLINE=92106627; PubMed=1372070;
RA Sandberg Nordqvist A.C., Stahlbom P.A., Lake M., Sara V.R.;
RT "Characterization of two cDNAs encoding insulin-like growth factor 1
(IGF-1) in the human fetal brain.";
RL Brain Res. Mol. Brain Res. 12:275-277(1992).
RN [7]
RN SEQUENCE OF 24-50 AND 119-153 FROM N.A.
RP MEDLINE=84235593; PubMed=6382022;
RA Dill T.J., Gray A., Hayflick J.S., Ulrich A.;
RT "Insulin-like growth factor II precursor gene organization in
relation to insulin gene family.";
RL Nature 310:777-781(1984).
RN [8]
RP SEQUENCE OF 49-118.
RX MEDLINE=78130171; PubMed=6323000;
RA Rinderknecht E., Humbel R.E.;
RT "The amino acid sequence of human insulin-like growth factor I and
its structural homology with proinsulin.";
RL J. Biol. Chem. 253:2769-2776(1978).
RN [9]
RP 3D-STRUCTURE MODELING.
RX MEDLINE=8320259; PubMed=6189745;
RA Blundell T.L., Bedarkar S., Humbel R.E.;
RT "Tertiary structures, receptor binding, and antigenicity of
insulin-like growth factors";
RL Fed. Proc. 42:2592-2597(1983).
RN [10]
RP STRUCTURE BY NMR.
RX MEDLINE=91242464; PubMed=2036417;
RA Cooke R.M., Harvey T.S., Campbell I.D.;
RT "Solution structure of human insulin-like growth factor 1: a nuclear
magnetic resonance and restrained molecular dynamics study.";
RL Biochemistry 30:5484-5491(1991).
RN [11]
RP STRUCTURE BY NMR.
RX MEDLINE=92216903; PubMed=1319992;
RA Sato A., Nishimura S., Okubo T., Kyogoku Y., Koyama S., Kobayashi M.,
RA Yasuda T., Kobayashi Y.;
RT "¹H-NMR assignment and secondary structure of human insulin-like
growth factor-I (IGF-I) in solution.";
RL J. Biochem. 111:529-536(1992).
RN [12]

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CC EMBL; LO8254; --; NOT_ANNOTATED_CDS.

CC PIR; PN0622; PN0622.

CC HSSP; P01343; IGF1.

CC InterPro; IPR04825; Ins/IGF/relax.

CC pfam; PF0049; Insulin; 1.

CC DR PRINTS; PR00277; INSULIN.

CC SMART; SM0078; IIGR; 1.

CC PROSITE; PS00262; INSULIN; 1.

CC DR KW Insulin family; Growth factor; Plasma; Signal.

CC FT NON_TER 1 1

CC FT SIGNAL <1 19 BY SIMILARITY.

CC FT CHAIN 20 89 INSULIN-LIKE GROWTH FACTOR I.

CC FT DOMAIN 20 48 B.

CC FT DOMAIN 49 60 C.

CC FT DOMAIN 61 81 A.

CC FT DOMAIN 82 89 D.

CC FT PROPER 90 122 B. PEPTIDE.

CC FT DISUFID 25 67 BY SIMILARITY.

CC FT DISUFID 37 80 BY SIMILARITY.

CC FT DISUFID 66 71 BY SIMILARITY.

CC SQ SEQUENCE 122 AA; 13407 MW; 036A004DC44E7D75 CRC64;

Query Match 77.4%; Score 463; DB 1; Length 122;

Best Local Similarity 98.8%; Prcd. No. 9.1e-43; 85; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Matches 85; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 GPETIGCAELVDAQPVCGDRGFFPNKPGYGGSSRAQOTGIVDECCPRSCDIRLEM 60

Db 20 GPETIGCAELVDAQPVCGDRGFFPNKPGYGGSSRAQOTGIVDECCPRSCDIRLEM 79

QY 61 CAPLKEAKSARSVAQRAQHDTMPKIQK 86

Db 80 CAPLKEAKSARSVAQRAQHDTMPKAK 105

RESULT 9

IGF1_BOVIN

ID _IGF1_BOVIN STANDARD; PRT; 154 AA.

AC P0455;

DT 01-APR-1998 (Rel. 07, Created)

DT 01-NOV-1991 (Rel. 20, Last sequence update)

DT 10-OCT-2003 (Rel. 42, Last annotation update)

DR Insulin-like growth factor I precursor (IGF-I) (Somatomedin).

GN IGF1.

OS Bos taurus (Bovine).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae; OC Bovidae; Bovinae; Bos.

OX NCBI_TaxID=9913;

RN [1] -

RP SEQUENCE OF 2-154 FROM N.A.

RP MEDLINE:90175014; PubMed=2208858;

RA Potsis T., Murphy C., Gannon P.,

RT "Nucleotide sequence of the bovine insulin-like growth factor 1 (IGF-1) and its IGF-1A precursor";

RL Nucleic Acids Res. 18:676-676 (1990).

RP [2] -

SEQUENCE OF 50-119 FROM N.A.

RP MEDLINE:95172127; PubMed=707598;

RA Schmid A., Binspanger R., Ambelgruber W., Sirowatz F., Schams D.;

RT "Expression of insulin-like growth factor 1 (IGF-1) in the bovine ovary during the oestrous cycle";

RP EXP. Clin. Endocrinol. 102:364-369 (1994).

RN [3] -

SEQUENCE OF 50-119.

MEDLINE=86095881; PubMed=3941093;

RX Honegger A.; Humber R.B.;

RA "Insulin-like growth factors I and II in fetal and adult bovine serum. Purification, primary structures, and immunological cross-reactivities";

RT [4];

J. Biol. Chem. 261:569-575(1986).

RP SEQUENCE OF 50-119;

RX Francis G.L.; Upton F.M.; Ballard F.J.; McNeil K.A.; Wallace J.C.;

RA "Insulin-like growth factors 1 and 2 in bovine colostrum. Sequences and biological activities compared with those of a potent truncated form.";

RL Biochem. J. 251:98-103(1988).

CC -- FUNCTION: The insulin-like growth factors, isolated from plasma, are structurally and functionally related to insulin but have a much higher growth-promoting activity.

CC -- SUBCELLULAR LOCATION: Secreted.

CC -- SIMILARITY: Belongs to the insulin family.

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CC EMBL; X15726; CAA33746.1; --;

DR EMBL; S76122; AAC14209.1; --;

DR PIR; S212672; IGB01.

DR InterPro; IPR004225; Ins/IGF/relax.

DR Pfam; PF00049; Insulin; 1.

DR PRINTS; PRO0277; INSULINB.

DR SMART; SM00078; IIGF; 1.

DR PROSITE; PS00262; INSULIN; 1.

DR KW Insulin family; Growth factor; Plasma; Signal.

FT SIGNAL 1 ? 49

FT PROPEP ? 49

FT CHAIN 50 119 INSULIN-LIKE GROWTH FACTOR I.

FT DOMAIN 50 78 B.

FT DOMAIN 79 90 C.

FT DOMAIN 91 111 A.

FT DOMAIN 112 119 D.

FT PROPEP 120 154 E. PEPTIDE.

FT DISULFID 55 97 BY SIMILARITY.

FT DISULFID 67 110 BY SIMILARITY.

FT DISULFID 96 101 BY SIMILARITY.

SQ SEQUENCE 154 AA; 17066 MW; 64201B6AF3140999 CRC64;

Query Match 77.4%; Score 463; DB 1; Length 154;

Best Local Similarity 98.8%; Pred. No. 1.2e-42; Indels 0; Gaps 0; Matches 85; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 GPELTICGALVLDAQFGCGDRGYFVNPKPTGCGSSSRAAPQGIVDVBCCFRSDCDLRLEMY 60

Db 50 GPELTICGALVLDAQFGCGDRGYFVNPKPTGCGSSSRAAPQGIVDVBCCFRSDCDLRLEMY 109

RESULT 10

IGFL_CAPHI

ID IGFL_CAPHI STANDARD; PRT; 154 AA.

AC P51437; 01-OCT-1995 (Rel. 34, Created)

DT 16-OCT-2001 (Rel. 40, Last sequence update)

DT 15-MAR-2004 (Rel. 43, Last annotation update)

DE Insulin-like growth factor I precursor (IGF-I) (somatomedin).

GN IGFL.

OS Capra hircus (Goat).

OC Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;

OC Bovidae; Caprinae; Capra.

OX NCBI_TaxID=9925;

RN [11];

RP SEQUENCE FROM N.A., AND TISSUE SPECIFICITY.

RC STRAIN=Nraiba; TISSUE=Liver;

RX RT MEDLINE=55290180; PubMed=7772848;

RA Mikawa S.; Yotsukawa G.-I.; Yamano Y.; Sakai H.; Komano T.; Hosoi Y.; Utsumi K.; Biotechnol. Biochem. 59:755-761(1995).

RL Biocat. Biotechnol. Biochem. 59:755-761(1995).

CC -- FUNCTION: The insulin-like growth factors, isolated from plasma, are structurally and functionally related to insulin but have a much higher growth-promoting activity.

CC -- SUBCELLULAR LOCATION: Secreted.

CC -- TISSUE SPECIFICITY: Expressed in all tissues examined: brain, lung, liver, spleen, uterus, ovary, testis, heart and skeletal muscle.

CC -- SIMILARITY: Belongs to the insulin family.

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CC EMBL; D11378; BAA1976.1; --;

DR EMBL; D26119; BAB77524.1; ALT SEQ.

DR EMBL; D26116; BAB77524.1; JOINED.

DR EMBL; D26118; BAB77524.1; JOINED.

DR PIR; JC2483; JC2483.

DR HSSP; PC1343; IGF1.

DR InterPro; IPR004825; Ins/IGF/relax.

DR Pfam; PF00049; Insulin; 1.

DR PRINTS; PRO0277; INSULINB.

DR SMART; SM00078; IIGF; 1.

DR PROSITE; PS00262; INSULIN; 1.

DR KW Insulin family; Growth factor; Plasma; Signal.

FT SIGNAL 1 ? 49

FT PROPEP ? 49

FT CHAIN 50 119 INSULIN-LIKE GROWTH FACTOR I.

FT DOMAIN 50 78 B.

FT DOMAIN 79 90 C.

FT DOMAIN 91 111 A.

FT DOMAIN 112 119 D.

FT PROPEP 120 154 E. PEPTIDE.

FT DISULFID 55 97 BY SIMILARITY.

FT DISULFID 67 110 BY SIMILARITY.

FT DISULFID 96 101 BY SIMILARITY.

SQ SEQUENCE 154 AA; 17082 MW; 072386AF3068422 CRC64;

Query Match 76.8%; Score 459; DB 1; Length 154;

Best Local Similarity 97.7%; Pred. No. 3.2e-2; Indels 0; Gaps 0; Matches 84; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 1 GPELTICGALVLDAQFGCGDRGYFVNPKPTGCGSSSRAAPQGIVDVBCCFRSDCDLRLEMY 60

Db 50 GPELTICGALVLDAQFGCGDRGYFVNPKPTGCGSSSRAAPQGIVDVBCCFRSDCDLRLEMY 109

RESULT 11

IGFL_SHEP

ID IGFL_SHEP STANDARD; PRT; 154 AA.

AC PI0763; DT 01-JUL-1999 (Rel. 11, Created)
 DT 01-FEB-1991 (Rel. 17, Last sequence update)
 DT 10-OCT-2003 (Rel. 42, Last annotation update)
 DE insulin-like growth factor I precursor (IGF-I) (Somatomedin).
 GN IGF1.
 CC Ovis aries (Sheep).
 CC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
 CC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
 CC Bovidae; Caprinae; Ovis.
 CC NCBI_TaxID:9940;
 CC RN [1] _
 CC RP SEQUENCE FROM N.A.
 CC TISSUE=Liver;
 CC MEDLINE=90126244; PubMed=2575490;
 CC Wong B.A., Ohissen S.M., Godfredson J.A., Dean D.M., Wheaton J.B.;
 CC "Cloning of ovine insulin-like growth factor-I cDNAs: heterogeneity
 CC in the mRNA population.",
 CC DNA 8:649-657(1989).
 CC [2] _
 CC RP SEQUENCE FROM N.A.
 CC TISSUE=Liver;
 CC MEDLINE=91197361; PubMed=21015053;
 CC Dickeson M.C., Saunders J.C., Gilmour R.S.;
 CC "The ovine insulin-like growth factor-I gene: characterization,
 CC expression and identification of a putative promoter.",
 CC J. Mol. Endocrinol. 6:17-31(1991).
 CC [3] _
 CC RP SEQUENCE FROM N.A.
 CC TISSUE=Liver;
 CC MEDLINE=93221682; PubMed=8466647;
 CC Ohissen S.M., Dean D.M., Wong B.A.;
 CC "Characterization of multiple transcription initiation sites of the
 CC ovine insulin-like growth factor-I gene and expression profiles of
 CC three alternatively spliced transcripts.",
 CC DNA Cell Biol. 12:243-251(1993).
 CC [4] _
 CC RP SEQUENCE OF 55-135 FROM N.A.
 CC STRAIN=Coopworth; TISSUE=Liver;
 CC MEDLINE=9325051; PubMed=8485157;
 CC Denmer J., Hill D.F., Peterkin G.B.;
 CC "Characterization of two sheep insulin-like growth factor II cDNAs
 CC with different 5'-untranslated regions.",
 CC Biochim. Biophys. Acta 1173:79-80(1993).
 CC [5] _
 CC RP SEQUENCE OF 50-119.
 CC MEDLINE=8916887; PubMed=2537174;
 CC Francis G.L., McNeil K.A., Wallace J.C., Ballard F.J., Owens P.C.;
 CC "Sheep insulin-like growth factors I and II: sequences, activities
 CC and assays.",
 CC Endocrinology 124:1173-1183(1989).
 CC [6] _
 CC RP SEQUENCE OF 50-79.
 CC MEDLINE=8932215; PubMed=2752053;
 CC Hey A.W., Browne C.A., Simpson R.J., Thorburn G.D.;
 CC "Simultaneous isolation of insulin-like growth factors I and II from
 CC adult sheep serum.",
 CC Biochim. Biophys. Acta 997:27-33(1989).
 CC -!- FUNCTION: The insulin-like growth factors isolated from plasma,
 CC are structurally and functionally related to insulin but have a
 CC much higher growth-promoting activity.
 CC -!- SUBCELLULAR LOCATION: Secreted.
 CC -!- ALTERNATIVE PRODUCTS: Event=Alternative splicing; Named isoforms=3;
 CC Name=B;
 CC IsoId=PI0763-1; Sequence=Displayed;
 CC Name=A;
 CC IsoId=PI0763-2; Sequence=VSP_002707;
 CC Name=C;
 CC IsoId=PI0763-3; Sequence=VSP_002706;
 CC -!- SIMILARITY: Belongs to the insulin family.
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DB Insulin-like growth factor IA precursor (IGF-IA) (Somatomedin).
 GN IGF1 OR IGF-1.
 OS Rattus norvegicus (Rat).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
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 RN [1] SEQUENCE FROM N.A.;
 RX MEDLINE=87222423; PubMed=3034909;
 RA Shimatsu A.; Rotwein P.;
 RT "Mosaic evolution of the insulin-like growth factors. Organization, sequence, and expression of the rat insulin-like growth factor I gene.";
 RL J. Biol. Chem. 262:7894-7900(1987).
 RN [2] SEQUENCE FROM N.A.
 RP TISSUE=Testis;
 RX MEDLINE=88003970; PubMed=3652906;
 RA Casella S.J.; Smith E.P.; van Wyk J.J.; Joseph D.R.; Hynes M.A.,
 RA Hoyt E.C.; Lund P.K.;
 RT "Isolation of rat testis cDNAs encoding an insulin-like growth factor I precursor.";
 RL DNA 6:325-330(1987).
 RN [3] SEQUENCE FROM N.A.
 RX MEDLINE=91103666; PubMed=1368571;
 RA Kato H.; Okoshi A.; Miura Y.; Noguchi T.;
 RT "A new cDNA clone relating to larger molecular species of rat insulin-like growth factor-I mRNA";
 RT insulin-like growth factor-I mRNA;
 RL Agric. Biol. Chem. 54:1599-1601(1990).
 RN [4] SEQUENCE FROM N.A.
 RX MEDLINE=89127259; PubMed=3221878;
 RA Roberts C.T.; Lasky S.R.; Love W.L.; Seaman W.T.; Leroith D.;
 RT "Structure of the rat insulin-like growth factor-II transcriptional unit: heterogeneous transcripts are generated from two promoters by use of multiple polyadenylation sites and differential ribonucleic acid splicing.";
 RT Mol. Endocrinol.; 2:1115-1126(1988).
 RN [5] SEQUENCE OF 46-153 FROM N.A.
 RX MEDLINE=87246337; PubMed=359538;
 RA Murphy L.J.; Bell G.I.; Duckworth M.L.; Friesen H.G.;
 RT "Identification, characterization and regulation of a rat complementary deoxyribonucleic acid which encodes insulin-like growth factor-I";
 RT Endocrinology 121:684-691(1987).
 RN [6] SEQUENCE OF 49-118.
 RX MEDLINE=9117409; PubMed=2538424;
 RA Tamura K.; Kobayashi M.; Ishii Y.; Tamura T.; Hashimoto K.;
 RA Nakamura S.; Niwa M.; Zupf J.;
 RT "Primary structure of rat insulin-like growth factor-I and its biological activities.";
 RL J. Biol. Chem. 264:5616-5621(1989).
 RT "FUNCTION: The insulin-like growth factors, isolated from plasma, are structurally and functionally related to insulin but have a much higher growth-promoting activity.";
 CC --!- SUBCELLULAR LOCATION: Secreted.
 CC --!- ALTERNATIVE PRODUCTS:
 CC Event=Alternative splicing; Named isoforms=2;
 CC Name=IGF-1A;
 CC IsoID=P08025-1; Sequence=Displayed;
 CC IsoID=P08024-1; Sequence=External;
 CC --!- SIMILARITY: Belongs to the insulin family.
 CC
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CC
 CC
 DR EMBL; X06033; CDA2936.1;
 DR EMBL; M15651; AAA41215.1;
 DR EMBL; M1567; AAA41215.1; JOINED.
 DR EMBL; M15648; AAA41215.1; JOINED.
 DR EMBL; M15649; AAA41215.1; JOINED.
 DR EMBL; M17714; AAA41227.1;
 DR EMBL; M17335; AAA41286.1; ALT_INIT.
 DR EMBL; M15451; AAA41287.1; ALT_INIT.
 DR PIR; B27804; B27804.
 DR HSSP; P01343; IGF1.
 DR InterPro; IPR004825; Ins/IGF/relax.
 DR Pfam; PF00049; Insulin; 1.
 DR PRINTS; PRO0277; INSULINB.
 DR SMART; SM00078; IIGF; 1.
 DR PROSITE; PS00262; INSULIN; 1.
 DR KW Insulin family; Growth factor; Plasma; Alternative splicing; Signal.
 FT SIGNAL 1 ? ?
 FT PROPEP ? 48 INSULIN-LIKE GROWTH FACTOR IA.
 FT CHAIN 49 118 B.
 FT DOMAIN 78 89 C.
 FT DOMAIN 90 110 A.
 FT DOMAIN 111 118 D.
 FT PROPEP 119 153 E PEPTIDE.
 FT DISULFID 54 96 BY SIMILARITY.
 FT DISULFID 66 109 BY SIMILARITY.
 FT DISULFID 95 100 BY SIMILARITY.
 FT DISULFID 110 112 APL -> VRC (IN REF. 4).
 FT CONFLICT 110 112 MW: 96683C00A4EB3DE7 CRC64;
 SQ SEQUENCE 153 AA; 17079 MW: 96683C00A4EB3DE7 CRC64;

Query Match 75.3%; Score 450; DB 1; Length 153;
 Best Local Similarity 95.3%; Pred. No. 2. 9e-41; Mismatches 1; Indels 0; Gaps 0;
 Matches 82; Conservative 1; MisMatches 3; Indels 0; Gaps 0;

QY 1 GPRTECQABELQALQVCGDGRGPFYRKPPTGQSSSRAPOTGIVDECCFRSCDLRLEMY 60
 Db 49 GPRTECQABELQALQVCGDGRGPFYRKPPTGQSSSRAPOTGIVDECCFRSCDLRLEMY 108
 QY 61 CAPIKPAKSANSVRAQHDPKTK 86
 Db 109 CAPLKPQTSKASRSIRACQHDPKTK 134

RESULT 13
 ID IGFA_MOUSE STANDARD PRT: 127 AA.
 AC P05017;
 DT 13-AUG-1987 (Rel. 05, Created)
 DT 13-AUG-1987 (Rel. 05, Last sequence update)
 DT 10-Oct-2003 (Rel. 42, Last annotation update)
 DE Insulin-like growth factor IA precursor (IGF-IA) (Somatomedin).
 GN IGF1 OR IGF-1.
 OS Mus musculus (Mouse).
 OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
 OX NCBI_TAXID=10090;
 RN [1] SEQUENCE FROM N.A.
 RP TISSUE=liver;
 RX MEDLINE=87040760; PubMed=3774549;
 RA Bell G.I.; Stempien M.M.; Fong N.M.; Rall L.B.;
 RT "Sequences of liver cDNAs encoding two different mouse insulin-like growth factor I precursors.";
 RT "FUNCTION: The insulin-like growth factors isolated from plasma, are structurally and functionally related to insulin but have a much higher growth-promoting activity.";
 CC --!- SUBCELLULAR LOCATION: Secreted.
 CC --!- ALTERNATIVE PRODUCTS:
 CC Event=Alternative splicing; Named isoforms=2;
 CC Name=IGF-1A;

CC IsoID: P05017-1; Sequence=Displayed;
 CC Name=IGF-IB;
 CC IsoID:P05018-1; Sequence=External;
 CC -!- SIMILARITY: Belongs to the insulin family.

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 DR EMBL; X04480; CAA28168.1; -.
 DR PIR: A25540; A25540.
 DR HSSP; 201343; IGF1.
 DR MGI; MGI:94432; IGF1.
 DR GO; GO:0001001; P:glial cell differentiation; IMP.
 DR GO; GO:0007399; P:neurogenesis; IMP.
 DR InterPro; IPR00425; Ins/IGF/relax.
 DR PR0049; Insulin; 1.
 DR PRINTS; PR0277; INSULINB.
 DR SMART; SM0078; ILGF; 1.
 DR PROSITE; PS00262; INSULIN; 1.
 DR KW Insulin family; Growth factor; Plasma; Alternative splicing; Signal.
 FT SIGNAL 1 22 INSULIN-LIKE GROWTH FACTOR 1A.
 FT CHAIN 23 92 B.
 FT DOMAIN 23 51 C.
 FT DOMAIN 52 63 A.
 FT DOMAIN 64 84 D.
 FT DOMAIN 85 92 E. PEPTIDE.
 FT PROPEP 93 127 BY SIMILARITY.
 FT DISULFID 28 70 BY SIMILARITY.
 FT DISULFID 40 83 BY SIMILARITY.
 FT DISULFID 69 127 AA; 14120 MW; 105488CACT2DC2D7 CRC64;
 SQ SEQUENCE

Query Match 74.7%; Score 447; DB 1; Length 127;
 Best Local Similarity 94.2%; Pred. No. 4.9e-41; 0; Gaps 0;
 Matches 81; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

Qy 1 GPETICGAEILVALQFVCGDRGFYFNKTFGYSSSRRAPQTGIVDCCFRSCDLRLEMY 60
 Db 23 GPETICGAEILVALQFVCGDRGFYFNKTFGYSSSRRAPQTGIVDCCFRSCDLRLEMY 82

Qy 61 CAPLKPAKSARSAQRAQHTDMPTQK 86
 Db 83 CAPLKPAKSARSAQRAQHTDMPTQK 108

RESULT 14

IGF1_COTJA STANDARD; PRT; 124 AA.
 ID IGF1_COTJA STANDARD; PRT; 124 AA.
 AC P251462;
 DT 01-OCT-1996 (Rel. 34, Created)
 DT 10-OCT-2003 (Rel. 42, Last annotation update)
 DE Insulin-like growth factor I precursor (IGF-I) (Somatomedin)
 DE (Fragment).
 GN IGF1.
 OS Gallus gallus (Chicken).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
 OC Archosaria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
 OC Gallus. NCBI_TaxID=93934;
 RN [1] Cetoni et al. 1996. J. Mol. Endocrinol. 10: 197-204.
 RP MELDLINE=95187621; PubMed=7891819;
 RA Kida S., Iwaki M., Nakamura A., Miura Y., Takenaka A., Takahashi S.,
 RA Noguchi T.;
 RT "Insulin-like growth factor-I messenger RNA content in the ovule of
 RT Japanese quail (*Coturnix coturnix japonica*): changes during growth
 and development or after estrogen administration.";

RL COMP. Biochem. Physiol. 109C:191-204(1994).
 CC -!- FUNCTION: The insulin-like growth factors, isolated from plasma,
 CC are structurally and functionally related to insulin but have a
 CC much higher growth-promoting activity.
 CC -!- SUBCELLULAR LOCATION: secreted.
 CC -!- SIMILARITY: Belongs to the insulin family.

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 DR EMBL; S75247; -; NOT_ANNOTATED_CDS.
 DR HSSP; PR01343; IGF1.
 DR InterPro; IPR0049; Insulin; 1.
 DR PR0049; INSULINB.
 DR SMART; SM0078; IGF; 1.
 DR PROSITE; PS00262; INSULIN; 1.
 DR KW Insulin family; Growth factor; Plasma.
 FT NON_TER 1 1 POTENTIAL_

Query Match 70.6%; Score 422; DB 1; Length 124;
 Best Local Similarity 89.5%; Pred. No. 2.3e-38; 0; Gaps 0;
 Matches 77; Conservative 3; Mismatches 6; Indels 0; Gaps 0;

Qy 1 GPETICGAEILVALQFVCGDRGFYFNKTFGYSSSRRAPQTGIVDCCFRSCDLRLEMY 60
 Db 20 GPETICGAEILVALQFVCGDRGFYFNKTFGYSSSRRAPQTGIVDCCFRSCDLRLEMY 79

Qy 61 CAPLKPAKSARSAQRAQHTDMPTQK 86
 Db 80 CAPLKPAKSARSAQRAQHTDMPTQK 105

RESULT 15

IGF1_CHICK STANDARD; PRT; 153 AA.
 ID IGF1_CHICK STANDARD; PRT; 153 AA.
 AC P18254;
 DT 01-NOV-1990 (Rel. 16, Last sequence update)
 DT 01-NOV-1990 (Rel. 16, Last sequence update)
 DT 10-OCT-2003 (Rel. 42, Last annotation update)
 DE Insulin-like growth factor I precursor (IGF-I) (Somatomedin).
 GN IGF1.
 OS Gallus gallus (Chicken).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
 OC Archosaria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
 OC Gallus. NCBI_TaxID=9031;
 RN [1] Cetoni et al. 1996. J. Mol. Endocrinol. 10: 197-204.
 RP MELDLINE=9019048; PubMed=2628728;
 RX SEQUENCE FROM N.A.
 RN [1] Cetoni et al. 1996. J. Mol. Endocrinol. 10: 197-204.
 RP "Structure and expression of a chicken insulin-like growth factor I
 RT precursor.";
 RL Mol. Endocrinol. 3:1907-1913(1989).
 RN [2] Cetoni et al. 1996. J. Mol. Endocrinol. 10: 197-204.
 RP SEQUENCE OF 1-21 FROM N.A.
 RX MELDLINE=91236750; PubMed=2033062;

Rotwein P., Kajimoto Y.; Rotwein P., Kajimoto Y.;
 "Structure of the chicken insulin-like growth factor I gene reveals
 conserved promoter elements.";
 J. Biol. Chem. 266:9724-9731(1991).
 [3]
 RP
 SQUENCE OF 49-118.
 MEDLINE=91106635; PubMed=2272467;
 Ballard F.J., Johnson R.J., Owens P.C., Francis G.L., Upton P.M.,
 McMurry J.P., Wallace J.C.;
 "Chicken insulin-like factor-I: amino acid sequence,
 radioimmunoassay, and plasma levels between strains and during
 growth.;"
 Gen. Comp. Endocrinol. 79:459-468(1990).
 CC
 -!- FUNCTION: The insulin-like growth factors, isolated from plasma,
 are structurally and functionally related to insulin but have a
 much higher growth-promoting activity.
 CC
 -!- SUBCELLULAR LOCATION: Secreted.
 CC
 -!- SIMILARITY: Belongs to the insulin family.
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 CC
 DR
 EMBL; M32791; AAA48828.1; -.
 DR
 PIR; M74176; AAA48829.1; -.
 DR
 HSSP; P01343; IGF1.
 DR
 InterPro; IPR004825; Ins/IGF-relax.
 DR
 PRINTS; PRO0277; INSULINB.
 DR
 SMART; SM00078; IIGF1.
 DR
 PROSITE; PS00262; INSULIN; 1.
 KW
 Insulin; family; Growth factor; Plasma; Signal.
 FT
 SIGNAL 1
 FT
 PROPEP ?
 FT
 CHAIN 49 118
 FT
 DOMAIN 49 77
 FT
 DOMAIN 78 89
 FT
 DOMAIN 90 110
 FT
 DOMAIN 111 118
 FT
 PROPEP 119 153
 FT
 DISUFD 54 96
 FT
 DISUFD 66 109
 FT
 DISUFD 95 100
 FT
 SEQUENCE 153 AA; 17267 MW; AAE13FFDED13EE2F8 CRC64;
 Query Match 70.6%; Score 422; DB 1; length 153;
 Best Local Similarity 89.5%; Pred. No. 2.9e-38; Gaps 0;
 Matches 77; Conservative 3; Mismatches 6; Indels 0;
 Qy 1 GPETICGAEVLVALQFGVQDGDRPFVNPKTGSSSSRAPQPTGIVBCCFRSCDRLRLEMV 60
 Db 49 GPETICGAEVLVALQFGVQDGDRPFVNPKTGSSSSRAPQPTGIVBCCFRSCDRLRLEMV 108
 Qy 61 CAPIKPKRSARSAVRQHIDMPKTQK 86
 Db 109 CAPIKPKRSARSAVRQHIDMPKTQK 134

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 Job time : 7.95181 sec